

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Oyster Creek, Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 1 9 1										PAGE (3) 1 OF 03																							
TITLE (4) HFA Relay Window Fogging with Undetermined Substance																																											
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																									
0 6		0 7		8 4		8 4		0 1		5		0 0		0 7		0 6		8 4		DOCKET NUMBER(S) 0 5 0 0 0																							
0 6		0 7		8 4		8 4		0 1		5		0 0		0 7		0 6		8 4		0 5 0 0 0																							
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																																									
N		20.402(b)										20.406(e)										50.73(a)(2)(iv)										73.71(b)											
POWER LEVEL (10)		0 1 0 0										20.406(a)(1)(i)										50.36(a)(1)										50.73(a)(2)(v)										73.71(e)	
												20.406(a)(1)(ii)										50.36(a)(2)										50.73(a)(2)(vii)										X OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
												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)(x)											
LICENSEE CONTACT FOR THIS LER (12)																																											
NAME Arthur Dickinson, Supv. Electrical Engineering																		TELEPHONE NUMBER																									
																		AREA CODE																									
																		6 0 9																									
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																											
CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NPDOS				CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NPDOS																							
SUPPLEMENTAL REPORT EXPECTED (14)																																											
X YES (If yes, complete EXPECTED SUBMISSION DATE)																		NO		EXPECTED SUBMISSION DATE (15)		MONTH		DAY		YEAR																	
																						1 0		3 1		8 4																	
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																																											

GPUN considers this issue to be of potentially generic importance. Since no failures or events requiring specific reporting have occurred, this report should be considered voluntary.

On January 25, 1984, window fogging of a number of HFA relays were found. Fifty-eight (58) relays (out of 68) with date code HW installed in the Reactor Protection System when energized began to fog up with an unknown oily vapor within the enclosed portion of the relay. The other ten (10) were not energized. General Electric was notified of this condition and asked to provide Oyster Creek with a solution.

New relays were supplied to Oyster Creek. Two new relays with date code EX were installed and energized on June 9, 1984 and fogging was noticed June 25, 1984. GE has been notified that further testing is required to determine the cause and solution to the problem.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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

TEXT (If more space is required, use additional NRC Form 365A's) (17)

DATE OF OCCURRENCE

The event occurred on January 25, 1984. Two new relays which were provided for a second replacement were energized and began fogging on June 25, 1984.

IDENTIFICATION OF OCCURRENCE

This report is being submitted for informational purposes only until conclusions have been established.

CONDITIONS PRIOR TO OCCURRENCE

1. When the original 68 relays (date code HW) were installed, the reactor was defueled and the mode switch was in REFUEL.
2. When the two new relays date code EX were installed, the reactor was fueled and the mode switch was in REFUEL.

DESCRIPTION OF OCCURRENCE

The original HFA relay change out was accomplished under recommendations from GE to change only Lexan coil HFA relays since they were proven to have coil failures and a plant decision to replace relays (nylon GE HFA 51 series) which were failing as a result of reaching end of life. At present, the newly installed AC Century Series HFA relays have an unknown oily substance which is coating the internal parts and fogging the glass cover of the relays. The substance is undergoing evaluation at GE labs. It was GE's contention that all the relays installed should be changed with GE replacements. New GE relays date code EX were shipped to the plant. Two relays date code HW were replaced with two relays date code EX on June 9, 1984. The two new relays date code HW with the oily substance were delivered to GE Labs in Malvern, PA along with the three relays date code HW from the Oyster Creek storeroom which had never been installed.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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Oyster Creek, Unit 1	0 5 0 0 0 2 1 9 8 4	—	0 1 5	—	0 0 0 3	OF	0 3

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

GPU Reading Labs were contacted to conduct independent testing of the one AC and one DC HFA Century series relays to simulate conditions at Oyster Creek. No significant fogging was produced at Reading Labs.

The GE preliminary report of February 20, 1984 and interim report of May 11, 1984 concluded the substance to be from the adhesive used to seal the glass to the cover plate. Oyster Creek proceeded to schedule replacement of the balance of the affected relays within the Reactor Protection System. After preliminary shop testing was completed on June 25, 1984, it was found that the two new relays date code EX installed on June 9, 1984 were fogging. These relays had a glass cover which contained no adhesive.

Again, GE was contacted to advise them of our findings. After discussions with GE, it was noted that their Malvern facility was developing the same condition as Oyster Creek had seen without the adhesive on the glass cover.

GPUN's Labs were contacted to provide personnel to examine the existing field conditions to determine what further testing would be required.

APPARENT CAUSE OF OCCURRENCE

The apparent cause of the occurrence is unknown at this time and further testing is required to determine:

1. What the substance is
2. What is the source of the substance
3. What effect the substance may have, if any, on the relay components that would alter the intended safety function of the relays in the Reactor Protection System.

CORRECTIVE ACTION

The corrective action is not known at this time. Investigations continue and any corrective action(s) involving the affected relays may include cleaning or replacement prior to plant startup depending upon the final results of the investigations. When GE Labs and GPU Reading Labs have completed their testing of the unknown substance a supplemental report with corrective actions will be issued.



**GPU Nuclear Corporation**

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Writer's Direct Dial Number:

July 6, 1984

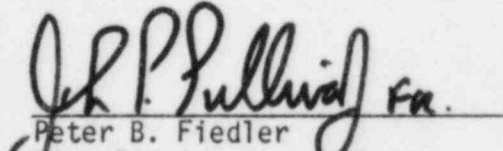
U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

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. 84-015.

Very truly yours,

  
Peter B. Fiedler  
Vice President and Director  
Oyster Creek

PBF:dam  
Enclosures

cc: Dr. Thomas E. Murley, Administrator  
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NRC Resident Inspector  
Oyster Creek Nuclear Generating Station  
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