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December 11, 1996  
6730-96-2362

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

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station  
Docket No. 50-219  
Licensee Event Report 96-012: Racked Out Breakers in 4160 vac Switchgear  
Do Not Meet Seismic Design Bases

Enclosed is Licensee Event Report 96-012. This event did not impact the health and safety of the public.

If any additional information or assistance is required, please contact Ms. Brenda DeMerchant, Regulatory Affairs Engineer, at 609-971-4642.

Very truly yours,

Michael B. Roche  
Vice President and Director  
Oyster Creek

MBR/BDe/gl

Attachment

cc: Administrator, Region I  
NRC Project Manager  
NRC Sr. Resident Inspector

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## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

OYSTER CREEK, UNIT 1

DOCKET NUMBER (2)

50-219

PAGE (3)

1 of 4

TITLE (4)

Racked Out Breakers in 4160 vac Switchgear Do Not Meet Seismic Design Bases

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
Month	Day	Year	Year	Sequential Number	Revision	Month	Day	Year	Facility Name	Docket Number
11	12	96	96	-- 012 --	0				FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		100	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)	
			20.2203(a)(1)		20.2203(a)(3)(i)		X 50.73(a)(2)(ii)		50.73(a)(2)(x)	
			20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
			20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER	
			20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A	
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)			

## LICENSEE CONTACT FOR THIS LER (12)

NAME

David Hynes, System Engineer

TELEPHONE NUMBER (Include Area Code)

609-971-2318

## 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)

YES (If yes, complete EXPECTED SUBMISSION DATE).	NO	EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
X					

## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On November 12, 1996, it was discovered that a condition outside the seismically qualified design bases existed for the 4160 vac switchgear buses 1C and 1D due to having the EC and ED Tie circuit breakers racked out and resting on the floor inside the cubicle. This condition has been present throughout the plant's operating history. The cause of this condition is previous seismic qualification walkdowns failed to identify this problem.

The safety significance of this condition is minimal since approved plant operating procedures are in place to mitigate the consequences of a station blackout combined with the low probability of a seismic event

Corrective actions include removing the tie breakers from the switchgear cubicle, procedural changes to ensure the 4160 vac circuit breakers were not left racked out in the switchgear, and evaluation of methods for securing the circuit breaker in the cubicle.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	Revision	
OYSTER CREEK, UNIT 1	50-219	96	-- 012	-- 0	2 OF 4

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

**DATE OF DISCOVERY**

The condition described in this report was identified on November 12, 1996.

**IDENTIFICATION OF OCCURRENCE**

A structural engineer became aware of a problem which existed at another plant with the seismic qualification of their switchgear. While checking for applicability, it was noted that Oyster Creek operated with two 4160 vac circuit breakers (CFI-52) in the racked out position. A condition outside the seismically qualified design bases existed for the 4160 vac switchgear (EHS-EA) buses 1C and 1D due to having the EC and ED Tie circuit breakers racked out and resting on the floor inside the cubicles. This is considered to be reportable in accordance with 10 CFR 50.73(a)(2)(ii).

**CONDITIONS PRIOR TO DISCOVERY**

The reactor was at 100% power at the time of discovery, however, the plant has been operated in all modes with the switchgear in this configuration. This condition has been present throughout the plant's operating history since initial startup.

**DESCRIPTION OF OCCURRENCE**

Oyster Creek's safety related switchgear, buses 1C and 1D are GE M-26 1E switchgear with AM 4.16-250 Magna-Blast circuit breakers. The circuit breakers are supplied with wheels to allow movement when racked out for maintenance. With the circuit breakers in the racked out position, they are not restrained from rolling forward in the cubicle. This switchgear was analyzed to be seismically qualified with the circuit breakers in the racked in position where their movement is restrained by the switchgear racking mechanism.

Circuit breakers EC and ED are the bus tie breakers to allow the safety related buses (1C and 1D) to be cross connected only when the plant is shutdown. These breakers are normally racked out when the plant is in operation. During the plant's operating history, other load supplying circuit breakers were also racked out within the switchgear to support surveillance testing and/or maintenance activities.

An immediate compensatory action was to have the EC and ED circuit breakers removed from the switchgear cubicles in buses 1C and 1D and properly secured.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	Revision	
OYSTER CREEK, UNIT 1	50-219	96	-- 012	-- 0	3 OF 4

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

**APPARENT CAUSE OF OCCURRENCE**

The cause of this condition was personnel error. Previous Seismic Qualification Utility Group walkdowns did not identify this problem.

**ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT**

Safety related buses 1C and 1D are energized from 1A and 1B 4160 vac buses during normal plant operation and receive power from the Emergency Diesel Generators (EIGS-EK) during a loss of power.

The effect of a seismic event with a 4160 vac breaker racked out would be potential damage to the breaker cubicle and could result in spurious actuation of electro-mechanical relays (CFI-RLY) in other compartments of the switchgear. The worst case of the effects of the spurious relay actuation could have been a loss of both emergency buses at the same time coupled with assumed loss of offsite power resulting in a station blackout. A station blackout has been analyzed and is discussed in the Updated Final Safety Analysis Report (UFSAR).

This condition is considered to have minimal safety significance since approved plant operating procedures are in place to mitigate the consequences of a station blackout combined with the low probability of a seismic event.

**CORRECTIVE ACTIONS****Immediate Action:**

- The EC and ED Tie breakers were removed from the switchgear cubicles and properly secured.
- A procedure change was initiated to ensure other 4160 vac circuit breakers are removed from the switchgear when racked out.

**Long Term Action:**

- GPU Nuclear is currently evaluating methods to seismically secure the circuit breaker in the cubicle when racked out.

NRC FORM 366A  
(4-95)

U.S. NUCLEAR REGULATORY COMMISSION

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FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	Revision	
OYSTER CREEK, UNIT 1	50-219	96	-- 012 --	0	4 OF 4

**TEXT** (If more space is required, use additional copies of NRC Form 366A) (37)

## **FAILURE DATA**

GE M-26 1E Switchgear with AM 4.16-250 Magna-Blast Circuit Breakers

## **SIMILAR EVENTS**

LER 85-023, Emergency Service Water System Seismic Concerns

LER 86-014, Containment Spray System Seismic Concerns

LER 86-021, Plant Systems Did Not Meet Seismic Design Bases

LER 94-001, Core Spray Piping Exceeding the Code Allowable Stresses Due to Original Design Deficiency

LER 94-011, Containment Spray/Auto Depressurization Panels Did Not Meet Seismic Criteria Due to Original Design

LER 96-013, Motor Control Center DC-2 Did Not Meet Seismic Design Bases