

Oyster Creek Generating Station
Route 9 South
PO Box 388
Forked River, NJ 08731

www.exeloncorp.com

10 CFR 50.73

RA-10-098

December 17, 2010

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555 - 0001

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Licensee Event Report (LER) 2010-001-00, Unexpected trip of the 1D
4160V breaker

Enclosed is LER 2010-001-00, Automatic Start of Emergency Diesel Generator due to Unexpected Trip of the 1D Bus Normal Feed Breaker. This event did not affect the health and safety of the public or plant personnel. This event did not result in a safety system functional failure. There are no regulatory commitments made in this LER submittal. The condition regarding this LER being submitted past the 60-day requirement has been entered into the station corrective action program under IR 1152255.

Should you have any questions concerning this letter, please contact Jeff Chrisley, Regulatory Assurance, at (609) 971-4469.

Respectfully,



Michael J. Massaro
Vice President
Oyster Creek Nuclear Generating Station

Enclosure: NRC Form 366, LER 2010-001-00

cc: Administrator, NRC Region 1
NRC Senior Resident Inspector - Oyster Creek Nuclear Generating Station
NRC Senior Project Manager - Oyster Creek Nuclear Generating Station

IE22
NRC

LICENSEE EVENT REPORT (LER)
(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME Oyster Creek, Unit 1	2. DOCKET NUMBER 05000 219	3. PAGE 1 OF 2
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4. TITLE
Automatic Start of Emergency Diesel Generator due to Unexpected Trip of the 1D Bus Normal Feed Breaker

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	07	2010	2010	- 001 -	00	12	17	2010	N/A	05000
									FACILITY NAME	DOCKET NUMBER
									N/A	05000

9. OPERATING MODE N	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)										
	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)							
10. POWER LEVEL 100	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)							
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)							
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)							
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)							
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER							
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A							

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME Jeffrey Chrisley, Sr. Regulatory Assurance Specialist	TELEPHONE NUMBER (Include Area Code) 6099714469
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE MONTH: DAY: YEAR:
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On October 7, 2010, the No. 2 Emergency Diesel Generator (EDG) automatically started and loaded onto the 'D' 4160V Safety-Related Bus ('D' Bus) due to a valid undervoltage start signal resulting from deenergization of the 'D' Bus. The "D" Bus main breaker opened during test equipment installation while performing a grid undervoltage channel functional test.

The cause of the trip of the 'D' Bus main breaker was test equipment failure from chemical attack on the plastic test jacks. Further investigation found that the timer connection jack showed signs of electrical pitting and arcing and was internally shorted to ground. After the test equipment was installed and prior to opening the test switch, the voltage on two of the undervoltage relays decreased below the set points for degraded voltage conditions, opening the normal feed breaker resulting in a valid undervoltage start signal for the No. 2 EDG.

Due to the event, the procedure for test equipment installation will be revised to include pre-use testing of the timer to ensure that the battery of the digital timer is acceptable for use and that the terminals are not shorted or grounded. Additionally, a placard will be installed on the timers stating, "Caution – Do not use cleaners or solvents to clean terminals on this unit. Avoid contact with oil on terminals."

This event is being reported pursuant to 10CFR50.73(a)(2)(iv)(A) as an automatic ESF system actuation.

U.S. NUCLEAR REGULATORY COMMISSION

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Oyster Creek, Unit 1	05000 219	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 2
		2010	- 001	- 00	

NARRATIVE

Plant Condition Prior to Event

Event Date: October 7, 2010 **Event Time:** 1141 EDT
Unit 1 Mode: Power Operation **Power Level:** 100%

Description of Event

On October 7, 2010, the 'D' 4160V Safety-Related Bus ('D' Bus) was lost during the performance of surveillance 632.2.002, "Grid Undervoltage Channel Functional Test." This test requires the installation of test equipment for the time delay portion of the test. The test equipment was installed and the electricians were waiting for permission to open the test switch for the undervoltage relay, 27 - 11D when the control room received the undervoltage alarm, T-3E "Bus 1D Lo Voltage". This was followed ten seconds later by alarm T-4E "Bus 1D Volts Lo -Lo" followed approximately two seconds later by a trip of the 'D' Bus main breaker. The No. 2 Emergency Diesel Generator started and loaded as designed in response to the undervoltage condition on the 'D' Bus. Plant response and operator actions were as expected for the event. The normal supply breaker to 'D' Bus was closed at 17:01 and the No. 2 EDG breaker was opened at 17:03. No. 2 EDG was secured at 17:09.

Cause of Event

The cause of the trip of the 'D' Bus main breaker was test equipment failure from chemical attack on the plastic test jacks. Both the failed terminal and the adjacent terminal exhibited signs of chemical attack from oils, solvents, and/or cleaners. Additionally, sparks were reported during the event coming from the test equipment jacks. Further investigation found that the test equipment, AVO MultiAmp SST-9203 Digital Timer, connection jack showed signs of electrical pitting and arcing and was internally shorted to ground. After the test equipment was installed and failed, the voltage on two of the undervoltage relays decreased below the set points for degraded voltage conditions opening the 'D' Bus normal feed breaker and subsequently initiated a valid undervoltage start signal for the No. 2 EDG.

Analysis of Event

This event is being reported pursuant to 10CFR50.73(a)(2)(iv)(A): Any event or condition that resulted in manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B) of this section. The trip of the 'D' Bus main breaker resulted in the No. 2 Emergency Diesel Generator starting and loading as designed. The Emergency Diesel Generator is a system listed in paragraph 10CFR50.73(a)(2)(iv)(B).

Corrective Actions

The procedure for test equipment installation will be revised to include pre-use testing of the timer to ensure that the battery of the digital timer is acceptable for use and that the terminals are not shorted or grounded. Additionally a placard will be installed on the timers stating, "Caution - Do not use cleaners or solvents to clean terminals on this unit. Avoid contact with oil on terminals."

Previous Occurrences

There have been no similar Licensee Event Reports submitted at Oyster Creek in the last three years.