

AmerGen Energy Company
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An Exelon Company

10 CFR 50.73

2130-05-20139

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

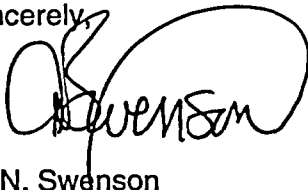
Oyster Creek Generating Station
Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Licensee Event Report 2005-002-00, Actuation of Reactor Protection System Due to An Anticipatory Generator Load Reject Caused by Faulted Lightning Arrestors in a Local Sub-Station

Enclosed is Licensee Event Report 2005-002, Revision 0. 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. Attachment 1 lists the regulatory commitments made in this LER submittal.

If any further information or assistance is needed, please contact David Fawcett at 609-971-4284.

Sincerely,



C. N. Swenson
Vice President, Oyster Creek Generating Station

CNS/DIF

Attachment 1: Summary of Commitments

Enclosure: NRC Form 366, LER 2005-002-00

cc: S. J. Collins, Administrator, USNRC Region I
P. S. Tam, USNRC Senior Project Manager, Oyster Creek
R. J. Summers, USNRC Senior Resident Inspector, Oyster Creek
File No. 05041

IE22

ATTACHMENT 1

OCGS Licensee Event Report 2005-002-00

SUMMARY OF COMMITMENTS

The following table identifies commitments made in this document by Exelon Nuclear. (Any other actions discussed in the submittal represent intended or planned actions by Exelon Nuclear. They are described to the NRC for the NRC's information and are not regulatory commitments.)

Commitment	Committed Date or "Outage"
In conjunction with the transmission utility, Oyster Creek will review the utility's work practices during this event to determine if improvements in their substation work control are warranted.	October 30, 2005

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: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 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 3
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4. TITLE

Actuation of Reactor Protection System Due to An Anticipatory Generator Load Reject Caused by Faulted Lightning Arrestors in a Local Sub-Station

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
06	01	2005	2005	002	00	07	26	2005	FACILITY NAME	DOCKET NUMBER
										05000
										05000

9. OPERATING MODE

N

10. POWER LEVEL

100

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)
<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 Robin Brown, Operations Support Manager	TELEPHONE NUMBER (Include Area Code) (609) 971-4979
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (If yes, complete EXPECTED SUBMISSION DATE) ☒ NO15. EXPECTED
SUBMISSION
DATE

MONTH DAY YEAR

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

On June 1, 2005, at 21:09, with Oyster Creek at 100% power, an Anticipatory Generator Load Reject scram occurred. During restoration of a transformer by the transmission utility at their substation, a failure of lightning arrestors resulted in a phase-to-phase-to-ground short circuit. This resulted in a grid transient of sufficient magnitude that the Oyster Creek Turbine-Generator sensed a load rejection condition, which resulted in a reactor scram signal. The reactor scrambled and the turbine-generator tripped as expected for this condition. All safety systems performed as expected. The plant was stabilized in the hot shutdown mode.

Corrective actions included completing restart required evaluations, testing and confirmation from the involved transmission utility that conditions in the substation would not result in recurrence of the grid disturbance.

The apparent cause of this event was equipment failure of the lightning arrestors in the transmission utility substation that created a grid disturbance.

There have been several grid disturbances over the life of the plant, including two LERs: LER 2003-003, Actuation of Reactor Protection System Due to a Grid Transient (August 14, 2003). LER 1994-007 was a reactor scram caused by a 230 KV bus section differential relay trip while a switchyard worker was installing a Digital Fault Recorder.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Oyster Creek, Unit 1	05000219	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2005	- 002	- 00	

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

Description of Event

On June 1, 2005, at 21:09, with Oyster Creek at 100% power, an Anticipatory Generator Load Reject scram occurred. Work was being performed by the transmission utility at their substation on a transformer. When reconnecting the transformer (XFMR) to the grid a phase-to-phase-to-ground fault occurred in 2 lightning arrestors (EIS-LAR), which subsequently resulted in a significant grid disturbance and loss of approximately 10 -15% of load. This caused the Oyster Creek Main Generator (EIS-TB) to sense a Load Reject. The Turbine and Generator tripped as expected on the reactor scram.

All safety systems performed as expected. The plant was stabilized in the hot shutdown mode.

Analysis of Event:

The scram occurred as a result of an anticipatory scram signal, which prevented any pressure or reactor power excursions. The plant responded as expected for a scram from full power. Other than the scram there were no challenges to any safety systems. Therefore the consequences of this event were minimal. Actuation of the Reactor Protection System is reportable under 10 CFR 50.73(a)(2)(iv)(A).

Cause of Event:

The apparent cause of this event was failure of lightning arrestors in the transmission utility substation owned and operated by a neighboring utility.

Corrective Actions:

Immediate corrective actions:

Operators took immediate actions in accordance with abnormal operating procedures, and stabilized the plant in hot shutdown pending completion of the post trip review and restart required corrective actions.

The following actions were performed prior to startup:

Oyster Creek Engineering evaluated the magnitude of the grid transient and determined it was sufficient to result in a Generator Load Reject signal.

Long term corrective actions include:

- 1) In conjunction with the transmission utility, Oyster Creek will review the utility's work practices during this event to determine if improvements in their substation work control are warranted. This will be completed by 10/30/2005.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Oyster Creek, Unit 1	05000219	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		2005	- 002	- 00	

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

Additional Information

A. Failed Components:

No plant components failed in this event.

B. Previous similar events:

LER 1994-007, Reactor Scram due to Personnel Error while performing Switchyard Work

LER 2003-003, Actuation of Reactor Protection System due to Grid Transient

C. Identification of components referred to in this Licensee Event Report:

Components	IEEE 805 System ID	IEEE 803A Function
Lightning arrestor	LAR	50
Transformer	FK	XFMR
Main Generator	TB	GEN