



Exelon Generation®

Oyster Creek
Route 9 South
P.O. Box 388
Forked River, NJ 08731

10 CFR 73.71

RA-16-107

December 05, 2016

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk or O-8B1
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

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

Subject: Special Report 2016-S01-001 "Special Nuclear Material Discovered Outside of Material Access Area."

Enclosed is Special Report 2016-S01-00 reporting the discovery of Special Nuclear Material outside of the Material Access Area, which occurred on October 06, 2016.

This event did not affect the health and safety of the public or plant personnel. There are no regulatory commitments made in this submittal.

Should you have any questions concerning this report, please contact Mike McKenna, Regulatory Assurance Manager, at (609) 971-4389.

Respectfully,

Michael Gillin
Plant Manager
Oyster Creek Nuclear Generating Station

Enclosure: NRC Form 366, Special Report 2016-S01-00

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

IE 74
NRR



LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOF-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

2. DOCKET NUMBER

05000219

3. PAGE

1 OF 3

4. TITLE

Special Nuclear Material Discovered Outside of Material Access Area

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	06	2016	2016	S01	00	12	05	2016	N/A	05000
<p>9. OPERATING MODE 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</p>										
N			<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)				
			<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)				
			<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)				
			<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)				
			10. POWER LEVEL				<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input checked="" type="checkbox"/> 73.71(a)(4)
000			<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)				
			<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)				
			<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)(D)	<input type="checkbox"/> 73.77(a)(2)(i)				
			<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)				
			<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input checked="" type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A					

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Michael McKenna, Regulatory Assurance Manager	TELEPHONE NUMBER (Include Area Code) (609) 971-4389
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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
X	IG	DET	G080	N	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED

YES (If yes, complete 15. EXPECTED SUBMISSION DATE) NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
06	01	2017

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

On October 6, 2016, a box of in-core power monitoring detectors (i.e., local power range monitors) was found in the Oyster Creek Generating Nuclear Station (OCNGS) Warehouse Annex located in the Owner Control Area (OCA). The box was identified during storeroom movement of equipment to find other stock items. It was determined that the regenerative detectors had not being properly stored pursuant to applicable 10 CFR 73 physical security requirements from the time of discovery back to 1987. Upon discovery, the detectors were immediately guarded by Station Security Personnel and actions were performed to transfer the detectors to a Material Access Area.

The event posed no threat to the public health and safety as the detectors were not irradiated (never placed in the reactor core).

This Special Report is been submitted in accordance with the requirements of 10 CFR 73.71(a)(4) and 10 CFR 73 Appendix G, Section 1.



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

(See NUREG-1022, R.3 for instruction and guidance for completing this form
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1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Oyster Creek	05000219	2016	- S01	- 00

NARRATIVE

Plant Conditions Prior To Event

Event Date: October 6, 2016 Event Time: 1548 EDT
Unit 1 Mode: Cold Shutdown Power Level: 0%

Description of Event

On October 6, 2016, a box of in-core power monitoring detectors (i.e., local power range monitors) was found in the OCNCS Warehouse Annex located in the Owner Control Area (OCA). The box was identified during storeroom movement of equipment to find other stock items. The box was located under a pallet with other material piled on top. One side of the box had hand written markings stating that the box contained eight (8) regenerative neutron detectors and a box of tubing. There were no special markings or information contained on the box indicating that the box contained Radioactive Material.

Upon discovery the stockkeeper in the warehouse immediately identified the box as possible Special Nuclear Material (SNM) and contacted the Reactor Engineering Department. The Reactor Engineering Manager, with support from General Electric (GE) and other Exelon sites, identified these detectors as BWR-6 in-core type detectors. The SNM was immediately guarded by Security and a 1-hour notification in accordance with 10 CFR 73.71(a) and 10 CFR 73, Appendix G, Section 1 was completed to the Nuclear Regulatory Commission (NRC).

The detectors were transferred to the Protected Area Warehouse, where the OCNCS Material Access Area is located. The detectors were guarded by Security through the transfer process at all times. Additionally, a Radiation Protection survey of the box and detectors was completed and no dose rate was reported on the material discovered.

Analysis of Event

The box of in-core power monitoring detectors was found outside of a Material Access Area. This box contained a package with the coils sealed inside. The packaging was confirmed intact and was heat sealed closed. It was apparent that no disruption of the contents of the box had occurred and that the box had not been open recently. Inside the packaging, there were multiple tubing coils with one end containing an approximate 1/8 inch diameter by 4-inch long stainless tube with no markings on the tube. The other end of the coil contained a detector union with a visible center pin connection. A total of eight (8) coils with detectors were identified inside the sealed package. The contents of the box were examined in more detail. The serial numbers and pictures of the detectors were sent to GE, who validated that the detectors were in-core local power range monitors typical of a BWR-6 unit and not a type of detector utilized at OCNCS.

The box of in-core power monitoring detectors, although not confirmed, most likely was part of a test program that took place at OCNCS between the years of 1975 to 1990. This program was discontinued in 1990. Neither GE nor Reuter Stokes has been able to provide records for the detectors. A review of OCNCS records from 1982 to date did not identify these in-core detectors in the site inventory. OCNCS is still investigating this event.



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Oyster Creek	05000219	2016	- S01	- 00

NARRATIVE

Immediate Actions Completed

- Transferred the box of in-core power monitoring detectors to a Material Access Area.
- Completed Extent of Condition Inspections in all material storage facilities at OCNCS.

Cause of the Event

The original failure to control the SNM occurred between 1977 and 1989. This is a legacy issue that is still under investigation and a supplement report will be submitted after the Apparent Cause Evaluation is completed.

Previous Event

A nuclear instrumentation detector was discovered in a training classroom outside of the site protected area boundary. Investigation into the history for the detector found that its serial number matched an intermediate range monitor detector that was previously included in the site SNM inventory from 1989. This issue was evaluated by the NRC as documented in a 2007 Material Control and Accountability Inspection Report (2007-403) for OCNCS, in which a Green Non-cited Violation was issued for the incident.