RA-15-073 10 CFR 50.73

August 14, 2015

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) 2014-005-01, Secondary Containment Declared Inoperable

Enclosed is LER 2014-005-01, Secondary Containment Declared Inoperable. This report is submitted in accordance with 10 CFR 50.73(a)(2)(v)(C) as an event that could have prevented the fulfillment of the safety function of a system needed to control the release of radioactive material and 10 CFR 50.73(a)(2)(i)(B), any operation or condition prohibited by the plant's Technical Specifications.

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.

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

Respectfully,

Jeffrey P. Dostal
Plant Manager
Oyster Creek Nuclear Generating Station

Enclosure: NRC Form 366, LER 2014-005-01

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

IE22
NRR

NRC FORM 366 (01-2014) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017

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 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.

# LICENSEE EVENT REPORT (LER)

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

| 1. FACILITY NAME | 2. DOCKET NUMBER | 3. PAGE |
|---|---|---|
| Oyster Creek, Unit 1 | 05000219 | 1 OF 3 |

**4. TITLE**

Secondary Containment Declared Inoperable

| 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 |
| | | | | | | | | | N/A | N/A |
| 09 | 19 | 2014 | 2014 | - 005 - | 01 | 08 | 11 | 2015 | FACILITY NAME N/A | DOCKET NUMBER N/A |

| 9. OPERATING MODE | 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) | | | |
|---|---|---|---|---|
| N | ☐ 20.2201(b) | ☐ 20.2203(a)(3)(i) | ☐ 50.73(a)(2)(i)(C) | ☐ 50.73(a)(2)(vii) |
| | ☐ 20.2201(d) | ☐ 20.2203(a)(3)(ii) | ☐ 50.73(a)(2)(ii)(A) | ☐ 50.73(a)(2)(viii)(A) |
| | ☐ 20.2203(a)(1) | ☐ 20.2203(a)(4) | ☐ 50.73(a)(2)(ii)(B) | ☐ 50.73(a)(2)(viii)(B) |
| | ☐ 20.2203(a)(2)(i) | ☐ 50.36(c)(1)(i)(A) | ☐ 50.73(a)(2)(iii) | ☐ 50.73(a)(2)(ix)(A) |
| **10. POWER LEVEL** | ☐ 20.2203(a)(2)(ii) | ☐ 50.36(c)(1)(ii)(A) | ☐ 50.73(a)(2)(iv)(A) | ☐ 50.73(a)(2)(x) |
| | ☐ 20.2203(a)(2)(iii) | ☐ 50.36(c)(2) | ☐ 50.73(a)(2)(v)(A) | ☐ 73.71(a)(4) |
| 0 | ☐ 20.2203(a)(2)(iv) | ☐ 50.46(a)(3)(ii) | ☐ 50.73(a)(2)(v)(B) | ☐ 73.71(a)(5) |
| | ☐ 20.2203(a)(2)(v) | ☐ 50.73(a)(2)(i)(A) | ☒ 50.73(a)(2)(v)(C) | ☐ OTHER |
| | ☐ 20.2203(a)(2)(vi) | ☒ 50.73(a)(2)(i)(B) | ☐ 50.73(a)(2)(v)(D) | Specify in Abstract below or in NRC Form 366A |

**12. LICENSEE CONTACT FOR THIS LER**

| FACILITY NAME | TELEPHONE NUMBER (Include Area Code) |
|---|---|
| Michael McKenna, Regulatory Assurance Manager | (609) 971-4389 |

**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 |
|---|---|---|---|---|---|---|---|---|---|
| A | NG | DRN | N/A | N | N/A | N/A | N/A | N/A | N/A |

| 14. SUPPLEMENTAL REPORT EXPECTED | 15. EXPECTED SUBMISSION DATE | MONTH | DAY | YEAR |
|---|---|---|---|---|
| ☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE) ☒ NO | | N/A | N/A | N/A |


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

On September 19, 2014, during refueling outage O1R25 with the unit in cold shutdown, a technician discovered that a previously authorized and installed Temporary Configuration Change (TCC) had been removed from a penetration in the Outboard Main Steam Isolation Valve Room (Trunnion Room). The purpose of the TCC is to isolate the penetration from the Reactor Building (RB) to the Trunnion Room to allow the RB Trunnion Room door to be maintained open during refueling outages. Per Technical Specifications (TS) 3.5.B and 4.5.G, in order to maintain secondary containment integrity with the Trunnion Room door open, four penetrations connecting the Trunnion Room to the RB must be sealed. The Trunnion Room door was open when the plug was found removed from a 6" equipment drain hub. The plug was immediately reinstalled. On September 20, 2014, the Post Maintenance Testing (PMT) for the TCC reinstallation was executed in order to declare secondary containment operable. This PMT revealed that the Standby Gas Treatment System (SBGTS) could not achieve the required minimum differential pressure of - 0.25" water vacuum on the RB. The cause was determined to be an improperly latched personnel access hatch on the Outer Reactor Building Airlock Door.

ENS 50476 was submitted on September 20, 2014. This issue is reportable under 10 CFR 50.73(a)(2)(v)(C) as an event that could have prevented the fulfillment of the safety function of a system needed to control the release of radioactive material, and 10 CFR 50.73(a)(2)(i)(B) as a condition which was prohibited by the plant's Technical Specifications.

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017



# LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

| 1. FACILITY NAME | 2. DOCKET | 6. LER NUMBER | | | 3. PAGE |
|---|---|---|---|---|---|
| | | YEAR | SEQUENTIAL NUMBER | REV NO. | |
| Oyster Creek, Unit 1 | 05000219 | 2014 | - 005 | - 01 | 2 OF 3 |

NARRATIVE

## Description of Event

On September 19, 2014, a technician discovered that a previously authorized and installed Temporary Configuration Change (TCC) had been removed from a penetration in the Outboard Main Steam Isolation Valve Room (trunnion room). The purpose of the TCC is to isolate penetration from the Reactor Building (RB) to the Trunnion Room to allow the RB Trunnion Room door to be maintained open during refueling outages. Per Technical Specifications (TS) 3.5.B and 4.5.G, in order to maintain secondary containment integrity with the Trunnion Room door open, four penetrations connecting the Trunnion Room to the RB must be sealed. The four penetrations consist of a 4" floor drain, a 6" equipment hub drain, a ventilation supply duct, and a ventilation return duct. The TCC of the four penetrations were installed on September 16, 2014, using a preventive maintenance work order to maintain secondary containment per TS noted above. There were no TCC tags on the individual components of the TCC. The work order directed the technician to attach a TCC tag on the Trunnion Room door once the TCC was installed. The TCC tag was affixed to the handle on the Trunnion Room door on September 18, 2014, when the TCC installation was verified by the Operations Department and taken active.

The Trunnion Room door was open when the plug was found to be removed from the 6" equipment drain hub on September 19, 2014, at 2359 hours. The plug was immediately reinstalled, restoring the safety function of the secondary containment. The issue was not documented in the Corrective Action Program (CAP) until 0500 hours on September 20, 2014. At 0530 hours, on September 20, 2014, Standby Gas Treatment System (SBGTS-1) was placed in service with normal RB Ventilation secured to support VACP-1 and CIP-3 Transfer No issue was noted at that time. At 0630 hours, Secondary containment was declared inoperable due to the Trunnion Room TCC removal, until Post Modification Testing (PMT) could be performed. At 0808 hours, SBGTS-1 was placed in service for PMT in accordance with Procedure 330, "Standby Gas Treatment System," and normal RB Ventilation was secured in accordance with Procedure 329, "Reactor Building Heating, Cooling and Ventilation System." At 0812 hours, RB differential pressure was noted to be < -0.25" water vacuum at -0.20" water vacuum, which is contrary to the requirements of Procedure 329 and TS 4.5.G.3. At 0959 hours, the RB inner railroad airlock door is closed and RB differential pressure returns to the required range (i.e., > - 0.25" water vacuum). At 1000 hours, secondary containment is declared operable.

It could not be determined who removed the equipment hub drain plug associated with the TCC. There is no direct monitoring device, such as a card reader, that can be used to identify an individual accessing the Trunnion Room. The maximum time of non-compliance was 26 hours, based on the last successful Trunnion Room TCC verification on September 18, 2014.

Secondary containment was declared operable at 1000 hours on September 20, 2014, after closing the inner railroad airlock door . At 1108 hours, on September 20, 2014, the outer RB railroad airlock door is found locked closed, but not properly latched with the hand wheel not in the expected closed position. The key log for that controls the issuance of the keys for the railroad airlocks revealed that the key was last signed out on September 18, 2014. It is not clear when on the September 18, 2014, the door was last used and closed.

NEI 99-02 (Revision 7), Regulatory Assessment Performance Indicator Guidelines, Section 2.2, Mitigating Systems Cornerstone, Safety System Functional Failures, Clarifying Notes, states the following:

> Engineering analyses: events in which the licensee declared a system inoperable but an engineering analysis later determined that the system was capable of performing its safety function are not counted, even if the system was removed from service to perform the analysis.

This event will not be reported in the NRC Performance Indicator (PI) for Safety System Functional Failures (SSFF) since an engineering analysis (technical evaluation) was performed which determined that the secondary containment system was capable of performing its safety function during this event.

## Analysis of Event

There was no actual safety consequence associated with this event and the potential safety consequences of this event were minimal.

| 1. FACILITY NAME | 2. DOCKET | 6. LER NUMBER | | | 3. PAGE |
|---|---|---|---|---|---|
| | | YEAR | SEQUENTIAL NUMBER | REV NO. | |
| Oyster Creek, Unit 1 | 05000219 | 2014 | - 005 | - 01 | 3 OF 3 |

**NARRATIVE**

Per TS Bases, secondary containment is designed to minimize any ground level release of radioactive materials which might result from a serious accident. The RB provides secondary containment during reactor operation when the drywell is sealed and in service and provides primary containment when the reactor is shutdown and the drywell is open, as during refueling. The Trunnion Room door may remain open during shutdown conditions (cold shutdown condition and refuel mode) when the Trunnion Room has been isolated from the secondary containment through the RB walls, penetrations and either the inboard or outboard valves to the main steam and feedwater piping being secured in the closed position. RB differential pressure was maintained negative at all times when secondary containment was lost at - 0.20" water vacuum. This is both above the alarm set point of 0.14 +/- 4" $H_20$ and ensures a secure secondary containment boundary since a Loss of Coolant Accident (LOCA) or high energy pipe break accident is not credible during cold shutdown conditions.

An Apparent Cause Evaluation (ACE) was performed to determine the failed barriers that resulted in part of the Trunnion Room TCC being removed during O1R25.

A technical evaluation was conducted to demonstrate that during the period that the seal on the equipment hub drain was not in place, the safety function of secondary containment was still in place. The evaluation determined that even with the additional opening of the 6" equipment hub drain, secondary containment requirements were met with significant margin. The calculation bounds the condition of the unsealed hub drain in the Trunnion Room; therefore, the safety function of secondary containment was not compromised by this condition.

**Cause of Event**

- The Apparent Cause of this event was inadequate signage on the Trunnion Room door and drain covers. The only TCC tag was on the outside of the Trunnion room door and with the door opened, the TCC tag was not clearly visible.
- Contributing to this event was the individual removing the drain cover to utilize the drain without understanding the basis for the drain being covered, or ensuring proper controls were in-place to remove the cover.
- Contributing to this event was a lack of a questioning attitude by the individual(s) who removed the drain cover.
- The cause of the improperly latched airlock door could not be identified.

**Immediate Actions:**

- The TCC was reinstalled.
- Additional TCC tags were affixed to each piece that comprised the TCC, and a tag was affixed to the inside and outside of the Trunnion Room door.
- Signage was affixed to each piece of the TCC stating not to remove TCC without Shift Manager approval.

**Corrective Actions**

- Perform a review of this event with Maintenance, Operations, and Radiation Protection departments. Specific emphasis on manipulating plant equipment without proper controlling documentation and/or Shift Manager permission.
- Revise the library copy of the applicable preventive maintenance work order to be specific to label each component with TCC tag and signage to prevent removal without Shift Manager approval. Verify that the procedure requirements of CC-AA-112, "Temporary Configuration Changes," are met.
- Procedure 312.3 was revised to require an Independent Verification when closing the Reactor Building Airlock Doors.

***Previous Occurrences***

None.

**Component Data**

| Components | IEEE 805 System ID | IEEE 803A Function |
|---|---|---|
| Reactor Building | NG | DRN |