Exelon Generation

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10 CFR 50.73

RA13-063

December 20, 2013

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

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Licensee Event Report 2013-007-00 Secondary Containment Inoperable Due to Interlock Doors Open

In accordance with 10 CFR 50.73(a)(2)(v)(C) and (D), Exelon Generation Company (EGC), LLC, is submitting Licensee Event Report Number 2013-001-00 for LaSalle Units 1 and 2.

There are no regulatory commitments in this letter. Should you have any questions concerning this report, please contact Mr. Guy V. Ford, Regulatory Assurance Manager, at (815) 415-2800.

Respectfully,

Harold T. Vinyard
Plant Manager
LaSalle County Station

Enclosure: Licensee Event Report

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – LaSalle County Station

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

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.

LICENSEE EVENT REPORT (LER)

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

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
LaSalle County Station, Unit 1	05000373	1 OF 4

4. TITLE

Secondary Containment Inoperable Due to Interlock Doors Open

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
									LaSalle County Station, Unit 2	05000374
10	22	2013	2013	- 007 -	00	12	20	2013	FACILITY NAME: N/A	DOCKET NUMBER: N/A

9. OPERATING MODE

1

10. POWER LEVEL

100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☒ 50.73(a)(2)(v)(C)
- ☒ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Joe Kutches, Maintenance Director	815-415-2500

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
X	NG	IMEC	Locknetics	Y					

14. SUPPLEMENTAL REPORT EXPECTED

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

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On October 22, 2013, both Units 1 and 2 were in Mode 1 at 100% power. At 1129 hours CDT, it was reported that both air lock doors on the Unit 1 Reactor Building 710' elevation between the Chemistry Hot Lab and the Reactor Building were open at the same time for approximately 10 seconds. While both interlock doors were open, Technical Specification (TS) Surveillance Requirement (SR) 3.6.4.1.2 ("Verify one secondary containment access door in each access opening is closed") was not met. Secondary containment was declared INOPERABLE for the time that both interlock doors were open. TS 3.6.4.1 Required Action A.1 for both Units 1 and 2 to restore secondary containment to OPERABLE status within 4 hours was entered and exited at 1129 CDT on October 22, 2013.

The cause of the event was a less than robust design of the door interlock assembly. Troubleshooting found that the mounting fasteners that secure the entire locking assembly to the frame of door # 226 (Reactor Building side of the interlock) were loose, which prevented the electro-mechanical solenoid operated bolt from properly aligning with the door-mounted catch. This misalignment prevented the bolt from entering the catch on door # 226 when door # 225 (Chemistry Hot Lab side) was opened. This malfunction resulted in the capability to open both interlock doors at the same time, and was similar to a previous occurrence on February 28, 2013.

Corrective actions from the previous occurrence to identify, procure and install a more robust interlock assembly design were still in progress at the time of the event.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
LaSalle County Station, Units 1 and 2	05000373	2013	- 007 -	00	2 OF 4

NARRATIVE

LaSalle County Station Units 1 and 2 are General Electric Company Boiling Water Reactors with 3546 Megawatts Rated Core Thermal Power.

A. CONDITION PRIOR TO EVENT:

Unit(s): 1 / 2 Event Date: October 22, 2013 Event Time: 1129 CDT
Reactor Mode(s): 1/1 Mode(s) Name: Power Operation Power Level: 100% / 100%

B. DESCRIPTION OF EVENT:

On October 22, 2013, Units 1 and 2 were in Mode 1 at 100%. At 1129 hours CDT, it was reported that both air lock doors on the Unit 1 Reactor Building 710' elevation between the Chemistry Hot Lab and the Reactor Building were open at the same time for approximately 10 seconds.

While both interlock doors were open, Technical Specification (TS) Surveillance Requirement (SR) 3.6.4.1.2 to verify one secondary containment [NG] access door in each access opening is closed was not met. The secondary containment was declared INOPERABLE for the period both interlock doors were open. LaSalle Station entered and exited TS 3.6.4.1 Required Action A.1 for both Unit 1 and 2 to restore secondary containment to OPERABLE status within 4 hours.

This occurrence is reportable under 10 CFR 50.73(a)(2)(v)(C) and (D) as an event or condition that could have prevented the fulfillment of the safety function of the structures or systems that are needed to control the release of radioactive material and to mitigate the consequences of an accident. An ENS report was made to the NRC (EN# 49462) at 1434 CDT on October 22, 2013, pursuant to 10 CFR 50.72(b)(3)(v)(C).

This event constitutes a safety system functional failure.

C. CAUSE OF EVENT:

Troubleshooting found that the mounting fasteners that secure the entire locking assembly to the frame of door # 226 (Reactor Building side of the interlock) were loose, which prevented the electro-mechanical solenoid operated bolt from properly aligning with the door-mounted catch. This misalignment prevented the bolt from entering the catch on door # 226 when door # 225 (Chemistry Hot Lab side) was opened. This malfunction resulted in the capability to open both interlock doors at the same time.

The loosening of the fasteners was determined to be due to repeated stressing from repeated challenging of the interlock function. The design was less than robust for the application, which is considered to be the cause.

Corrective actions from the previous occurrence to identify, procure and install a more robust design were still in progress at the time of the event. Interim corrective actions were in place to perform quarterly inspections of the assemblies and to tighten the fasteners as required, with the most recent performance on September 25, 2013.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
LaSalle County Station, Units 1 and 2	05000373	2013	- 007 -	00	3 OF 4

NARRATIVE

D. SAFETY ANALYSIS:

The safety significance of this event was minimal. The Reactor Building-to-outside differential pressure remained negative throughout the period that the secondary containment was inoperable. The secondary containment was inoperable for approximately 10 seconds, which was significantly less than the four-hour Completion Time to restore the secondary containment to operable status allowed by TS 3.6.4.1 Required Action A.1.

E. CORRECTIVE ACTIONS:

- The interlock assembly for door #226 was repaired.
- Efforts to install a more robust design for the interlock assembly are in progress.
- Quarterly preventative maintenance to inspect the assemblies and fasteners and tighten or replace as necessary remain in progress.

F. PREVIOUS OCCURRENCES:

LER 2013-001-00

On February 28, 2013, Unit 1 was in Mode 1 at 100% power and Unit 2 was in Mode 5 for refueling outage L2R14. At 0400 hours CST, it was reported that both air lock doors on the Unit 1 Reactor Building 710' elevation between the Chemistry Hot Lab and the Reactor Building were open at the same time for approximately 10 seconds. While both interlock doors were open, Technical Specification (TS) Surveillance Requirement (SR) 3.6.4.1.2 ("Verify one secondary containment access door in each access opening is closed") was not met for Unit 1. Secondary containment was declared INOPERABLE for the time that both interlock doors were open. TS 3.6.4.1 Required Action A.1 to restore secondary containment to OPERABLE status within 4 hours was entered and exited for Unit 1 at 0400 CST on February 28, 2013.

The cause of the event was determined to be a less than robust design of the door interlock assembly. Troubleshooting found that the mounting fasteners that secure the entire locking assembly to the frame of door # 226 (Reactor Building side of the interlock) were loose, which prevented the electro-mechanical solenoid operated bolt from properly aligning with the door-mounted catch. This misalignment prevented the bolt from entering the catch on door # 226 when door # 225 (Chemistry Hot Lab side) was opened. This malfunction resulted in the capability to open both interlock doors at the same time.

This occurrence was similar to the most recent event. In addition to repairing the interlock assembly by tightening the fasteners, actions were initiated to periodically inspect the assemblies and to identify and install a more robust design. The new design had been identified but not installed when the October 2013 event occurred.

LER 2012-001-00

On September 18, 2012, Units 1 and 2 were in Mode 1 at 100% power. At 0115 hours CDT, an Equipment Operator (EO) reported the Unit 2 Reactor Building 761'elevation Interlock Doors 424/314 were both open at the same time for approximately 10 seconds. During the time that both interlock doors were open, Technical Specification (TS) Surveillance Requirement (SR) 3.6.4.1.2 ("Verify one secondary containment access door in each access opening is closed") was not met. The secondary containment was declared INOPERABLE for the

NARRATIVE

time that both interlock doors were open. LaSalle Station entered and exited TS 3.6.4.1 Required Action A.1 for both Units 1 and 2 to restore secondary containment to OPERABLE status within 4 hours.

The cause of the event was determined to be the solenoid bracket being loose on Unit 2 Reactor Building 761' interlock door 424. Two screws that hold the locking solenoid bracket in place were found loose. The two loose screws on the locking solenoid mounting bracket caused the electric lock assembly to become misaligned. The misalignment of the electric lock assembly prohibited the locking solenoid plunger from being fully engaged with the door catch and damaged the limit switch, which resulted in the capability to open both interlock doors at the same time.

G. COMPONENT FAILURE DATA:

Locknetics/SDC style lock