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10 CFR 50.73

RA13-033

June 17, 2013

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

LaSalle County Station, Unit 1
Facility Operating License No. NPF-11
NRC Docket No. 50-373

Subject: Licensee Event Report 2013-003-00 Low Pressure Core Spray System Declared Inoperable Due to Faulty Control Switch

In accordance with 10 CFR 50.73(a)(2)(v)(D), Exelon Generation Company (EGC), LLC, is submitting Licensee Event Report Number 2013-003-00 for LaSalle Unit 1.

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)

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4. TITLE

Low Pressure Core Spray System Declared Inoperable Due to Faulty Control Switch

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
04	18	2013	2013	- 003 -	00	06	17	2013	FACILITY NAME: N/A	DOCKET NUMBER: N/A

9. OPERATING MODE

3

10. POWER LEVEL

000

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)*
Barbara J. Houston, Maintenance Support Manager	815-415-2501

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	BM	HS	G080	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 April 18, 2013, at approximately 1325 hours CDT, Unit 1 was in Mode 3 following a loss of offsite power event and dual unit scram the previous day. While attempting to raise Unit 1 reactor water level with the Low Pressure Core Spray (LPCS) system, LPCS injection motor-operated valve 1E21-F005 failed to open when the control switch (1E21A-S002) was held in the "OPEN" position. The LPCS system was declared inoperable but available, and Technical Specification (TS) 3.5.1 Required Action A.1 was entered, requiring that LPCS be restored to operable status within seven days.

The cause of the event was the failure of the 1 & 1T contact set on General Electric SBM switch 1E21A-S002 due to the buildup of oxidation on the contact surfaces. All other contacts in the switch were found to be working normally. The corrective action was to replace the control switch. A sample of SBM switches will be tested to determine if electrical contact erosion is starting to occur on other switches with similar in-service life installed in similar electrical circuits.

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NARRATIVE

LaSalle County Station Units 1 is a General Electric Company Boiling Water Reactor with 3546 Megawatts Rated Core Thermal Power.

A. CONDITION PRIOR TO EVENT:

Unit(s): 1 Event Date: April 18, 2013 Event Time: 1325 CDT
Reactor Mode(s): 3 Mode(s) Name: Hot Shutdown Power Level: 0%

B. DESCRIPTION OF EVENT:

On April 18, 2013, at approximately 1325 hours CDT, Unit 1 was in Mode 3 following a loss of offsite power event and dual unit scram the previous day. While attempting to raise Unit 1 reactor water level with the Low Pressure Core Spray (LPCS)[BM] system, LPCS injection motor-operated valve 1E21-F005 failed to open when the control switch (1E21A-S002) was held in the "OPEN" position.

The LPCS system was declared inoperable but available, with an Equipment Operator briefed and ready to manually open the injection valve if required. Technical Specification (TS) 3.5.1 Required Action A.1 was entered, requiring that LPCS be restored to operable status within seven days. The 1C Residual Heat Removal (RHR)[BO] system was started and lined up as a standby injection source.

Initial review of the failure determined that the event was not reportable; however, subsequent review determined that because LPCS is a single train system, the event was reportable under 10 CFR 50.73(a)(2)(v)(D) as an event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident. An ENS report was made (EN-48966) pursuant to 50.72(b)(3)(v)(D) at 1123 CDT on April 25, 2013.

This event constitutes a safety system functional failure.

C. CAUSE OF EVENT:

Troubleshooting identified that the problem was with control switch 1E21A-S002, which is a General Electric single block module (Type SBM) switch. The switch was tested following replacement, and it was determined that the direct cause of the event was the failure of the 1 & 1T contact set. The most probable cause of the contact set failure was electrical erosion of the contact surface, which allowed the buildup of oxidation that prevented 1E21-F005 valve operation. Electrical contact erosion is caused by arcing inherent in the cycling of the switch. All other contacts in the switch were found to be working normally.

D. SAFETY ANALYSIS:

The safety significance of this event was minimal. Troubleshooting of the switch and review of the control circuit wiring found that the failure of contacts 1 & 1T would not have prevented 1E21-F005 from automatically opening upon an actuation signal.

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NARRATIVE

E. CORRECTIVE ACTIONS:

- Control switch 1E21A-S002 was replaced, and the new switch was tested satisfactorily.
- A sample of SBM switches will be tested to determine if electrical contact erosion is starting to occur on other switches with similar in-service life installed in similar electrical circuits.

F. PREVIOUS OCCURRENCES:

A review found no previous occurrence of a system rendered inoperable due to failure of a control switch in the past ten years.

G. COMPONENT FAILURE DATA:

General Electric Type SBM Switch