Exelon Generation

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10 CFR 50.73

RA18-060

July 25, 2018

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

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

Subject: Licensee Event Report 2018-003-01, Two Main Steam Safety Relief Valves Failed Inservice Lift Inspection Pressure Test

In accordance with 10 CFR 50.73(a)(2)(i)(B), Exelon Generation Company, LLC (EGC) is submitting Licensee Event Report (LER) Number 2018-003-01 for LaSalle County Station, Unit 1.

There are no regulatory commitments in this letter. Should you have any questions concerning this report, please contact Ms. Dwi Murray, 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
(04-2018)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 03/31/2020

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 Information Services Branch (T-2 F43), 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, 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)

(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/)

1. Facility Name	2. Docket Number	3. Page
LaSalle County Station, Unit 1	05000373	1 OF 3

4. Title

Two Main Steam Safety Relief Valves Failed Inservice Lift Inspection Pressure Test

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
									NA	NA
02	27	2018	2017	- 003	- 01	07	25	2018	Facility Name NA	Docket Number NA

9. Operating Mode	11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: *(Check all that apply)*			
5	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
10. Power Level	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
000	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(C)	☐ 73.77(a)(1)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(D)	☐ 73.77(a)(2)(i)
	☐ 20.2203(a)(2)(vi)	☒ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(ii)
		☐ 50.73(a)(2)(i)(C)	☐ Other (Specify in Abstract below or in NRC Form 366A)	

12. Licensee Contact for this LER

Licensee Contact	Telephone Number (Include Area Code)
Norha Plumey, Engineering Director	(815) 415-3801

13. Complete One Line for each Component Failure Described in this Report

Cause	System	Component	Manufacturer	Reportable to ICES	Cause	System	Component	Manufacturer	Reportable to ICES
X	AD	RV	C710	Yes	NA	NA	NA	NA	NA

14. Supplemental Report Expected	15. Expected Submission Date	Month	Day	Year
☐ Yes (If yes, complete 15. Expected Submission Date) ☒ No		NA	NA	NA

Abstract (Limit to 1400 spaces, i.e., approximately 14 single-spaced typewritten lines)

During the February 2018 Unit 1 refueling outage, two main steam safety relief valves (SRV) did not pass Technical Specification (TS) Surveillance Requirement 3.4.4.1 and Inservice Testing (IST) Program lift pressure requirements. Both SRVs lifted below their expected lift pressures. On February 27, 2018, SRV 1B21-F013R was required to lift within plus or minus three percent of 1205 psi (i.e., 1205 psi plus or minus 36.1 psi), but lifted at 1167 psi. On February 27, 2018, SRV 1B21-F013U was required to lift within plus or minus three percent of 1150 psi (i.e., 1150 psi plus or minus 34.5 psi), but lifted at 1109 psi.

Multiple test failures are reportable under 10 CFR 50.73(a)(2)(i)(B) as an operation or condition prohibited by the plant's TS. Both SRVs lifted prior to their expected lift pressures, which is conservative regarding maintaining reactor pressure vessel over-pressure limits. Both SRVs were replaced during the outage. A failure analysis was conducted; however, it did not identify a cause for the valves lifting below their expected lift set-points.

LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

(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/)

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
LaSalle County Station, Unit 1	05000373	2018	- 003	- 01

NARRATIVE

PLANT AND SYSTEM IDENTIFICATION

LaSalle County Station (LSCS) Unit 1 is a General Electric Boiling Water Reactor with 3546 Megawatts Thermal Rated Core Power.

The main steam safety relief valves (SRVs) are designed to prevent over-pressurization of the reactor pressure vessel (RPV) during transients and abnormal conditions, which protects against a failure of the reactor coolant pressure boundary (RCPB). There are thirteen SRVs installed on the four main steam lines, which discharge near the bottom of the suppression pool to condense the steam through SRV tailpipes that exhaust beneath the suppression pool surface.

CONDITION PRIOR TO EVENT

Unit(s): 1	Date:	February 27, 2018	Time:	1520 CST
Reactor Mode(s): 5	Mode(s) Name:	Refueling	Power Level:	0 percent

DESCRIPTION OF EVENT

During the February 2018 Unit 1 refueling outage, two main steam safety relief valves (SRV) did not pass Technical Specification (TS) Surveillance Requirement (SR) 3.4.4.1 and Inservice Testing (IST) Program lift pressure requirements. Both SRVs lifted below their expected lift pressures. On February 27, 2018, SRV 1B21-F013R was required to lift within plus or minus three percent of 1205 psi (i.e., 1205 psi plus or minus 36.1 psi), but lifted at 1167 psi. On February 27, 2018, SRV 1B21-F013U was required to lift within plus or minus three percent of 1150 psi (i.e., 1150 psi plus or minus 34.5 psi), but lifted at 1109 psi.

CAUSE OF EVENT

A failure analysis was conducted; however, it did not identify a cause for the valves lifting below their expected lift set-points.

Station operating experience has shown a tendency for a portion of LSCS SRVs to experience minor setpoint drift sufficient to exceed the acceptance criteria of minus three percent over time. A license amendment request (LAR) was submitted to the NRC on February 27, 2018 to revise TS SR 3.4.4.1 to lower the setpoint tolerances for Unit 1 and Unit 2 SRVs. This proposed change would revise the SRV as-found lower tolerances from minus three percent to minus five percent to account for minor SRV setpoint drift in the conservative direction. This proposed change will reduce the unnecessarily restrictive surveillance requirement and will not impact the reliability of the SRVs or adversely impact their ability to perform their safety function. The change will reduce the number of TS SRV surveillance test failures for early lift pressure and preclude the submittal of previously reportable licensee event reports to the NRC due to setpoint drift in the low (conservative) direction.

REPORTABILITY AND SAFETY ANALYSIS

Multiple test failures are reportable under 10 CFR 50.73(a)(2)(i)(B) as an operation or condition prohibited by the plant's TS. Both SRVs lifted prior to their expected lift pressures, which is conservative regarding maintaining reactor pressure vessel over-pressure limits.

The safety significance of this condition was minimal. The out-of-tolerance lift pressures were discovered while Unit 1 was in Mode 5 during a refueling outage and the SRVs were not required to be operable. Both SRVs lifted prior to their expected lift pressures, which is conservative regarding maintaining reactor pressure vessel overpressure limits.

CORRECTIVE ACTIONS

Both SRVs 1B21-F013R and 1B21-F013U were replaced during the outage. The cause of the condition was indeterminate.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
LaSalle County Station, Unit 1	05000373	2018	- 003	- 01

NARRATIVE

PREVIOUS OCCURRENCES

LER Unit 2 374-2015-002-01:
During the February 2015 Unit 2 refueling outage L2R15, two main steam safety relief valves (SRV) did not pass TS Surveillance Requirement 3.4.4.1 and Inservice Testing Program lift pressure requirements. Both SRVs lifted below their expected lift pressures and were replaced during the outage. A failure analysis was conducted by a vendor testing laboratory, but the cause for the valves lifting below their set-point was indeterminate.

LER Unit 2 374-2017-004-01:
During the February 2017 Unit 2 refueling outage, two main steam safety relief valves (SRV) did not pass TS Surveillance Requirement 3.4.4.1 and Inservice Testing Program lift pressure requirements. Both SRVs lifted below their expected lift pressures and were replaced during the outage. A failure analysis was conducted by a vendor testing laboratory, but the cause for the valves lifting below their set-point was indeterminate.

COMPONENT FAILURE DATA

Manufacturer: Crosby
Device: Main Steam Safety Relief Valves, ASME Section III, Class 1
Component ID: Style HB-65-BP, Size 6R10