Constellation.

LaSalle County Station
2601 North 21st Road
Marseilles, IL 61341
815-415-2000 Telephone

10 CFR 50.73

RA22-054

December 28, 2022

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

LaSalle County Station, Units 1 and 2
Renewed Facility Operating License No. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Licensee Event Report 2022-004-00, Both Trains of Main Control Room and Auxiliary Electric Room HVAC Declared Inoperable due to Compressor Trips.

In accordance with 10 CFR 50.73(a)(2)(v)(D), Exelon Generation Company, LLC (EGC) is submitting Licensee Event Report (LER) Number 2022-004-00 for LaSalle County Station, Units 1 and 2.

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

Respectfully,

John Van Fleet Jr
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 (08-2020) | U.S. NUCLEAR REGULATORY COMMISSION | APPROVED BY OMB: NO. 3150-0104 | EXPIRES: 08/31/2023

LICENSEE EVENT REPORT (LER)

(See Page 3 for required number of digits/characters for each block)
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1. Facility Name	2. Docket Number	3. Page
LaSalle County Station, Unit 1	05000 - 373	1 OF 5

4. Title

Both Trains of Main Control Room and Auxiliary Electric Room HVAC Declared Inoperable due to Compressor Trips.

5. Event Date			6. LER Number			7. Report Date			8. Other Facilities Involved	
Month	Day	Year	Year	Sequential Number	Revision No.	Month	Day	Year	Facility Name	Docket Number
11	04	2022	2022	- 004 -	00	12	21	2022	LaSalle County Station, Unit 2	05000-374
									Facility Name: NA	Docket Number: NA

9. Operating Mode	10. Power Level
1	100 percent

11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: *(Check all that apply)*

10 CFR Part 20	☐ 20.2203(a)(2)(vi)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(A)	**10 CFR Part 73**
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.69(g)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(4)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(i)	**10 CFR Part 21**	☐ 50.73(a)(2)(i)(B)	☒ 50.73(a)(2)(v)(D)	☐ 73.77(a)(1)(i)
☐ 20.2203(a)(2)(ii)	☐ 21.2(c)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(i)
☐ 20.2203(a)(2)(iii)	**10 CFR Part 50**	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)	☐ 73.77(a)(2)(ii)
☐ 20.2203(a)(2)(iv)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)	
☐ 20.2203(a)(2)(v)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)	

☐ **OTHER** (Specify here, in abstract, or NRC 366A).

12. Licensee Contact for this LER

Licensee Contact	Phone Number (Include area code)
CJ Smith, Operations Director	(815) 415-2200

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

Cause	System	Component	Manufacturer	Reportable to IRIS		Cause	System	Component	Manufacturer	Reportable to IRIS
B	VI	COMP	C147	Y						

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

6. Abstract (Limit to 1560 spaces, i.e., approximately 15 single-spaced typewritten lines)

On November 3, 2022, both Units 1 and 2 were in Mode 1 and at 100% power. At 2308 CDT the A Main Control Room Ventilation (VC) Compressor tripped on low oil pressure. The A train of the Main Control Room Ventilation (VC) was declared inoperable. The station swapped to the B VC/VE train.

On November 4 at 0006 CDT, the B Auxiliary Electric Room Ventilation (VE) compressor tripped on high oil temperature and the B VE train was declared inoperable. With both the A and B control room area ventilation air conditioning (CRAC) trains inoperable, the system was in a condition that could have prevented fulfillment of a safety function.

The cause of the A VC Compressor trip was a leak on an oil pressure switch sensing line and the cause of the B VE compressor trip was high oil temperature due to slugging.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
LaSalle County Station, Unit 1	05000- 373	2022	- 004	- 00

NARRATIVE

Plant and System Identification

LaSalle County Station Unit 1 and 2 is a General Electric Boiling Water Reactor with 3546 Megawatts Thermal Rated Core Power. The affected system was the Main Control Room Area Ventilation system (VC) and the Auxiliary Equipment Room Ventilation System (VE).

Condition Prior to Event

Unit(s): 1/2 Date: November 4, 2022 Time: 0006 CDT
Reactor Mode(s): 1/1 Mode(s) Name: Power Operation Power Level: 100%/100%

Description

On November 3, 2022, both Units 1 and 2 were in Mode 1 and at 100% power. At 2308 CDT the A Main Control Room Ventilation (VC) Compressor tripped on low oil pressure. Initial investigations by operations personnel identified an oil leak inside the control cabinet. An emergent swap to the B Main Control Room Ventilation (VC) and Auxiliary Electric Room Ventilation (VE) train was completed.

The A train of VC was declared inoperable, and both units entered TS 3.7.5 Required Action (RA) A.1 to restore the A CRAC subsystem to Operable within 30 days.

On November 4 at 0006 CDT, the B VE compressor tripped on high oil temperature and the B VE train was declared inoperable. Both units subsequently entered TS 3.7.5 RA B.1 to verify control room temperature is ≤ 90 degF once per 4 hours and RA B.2 to restore one AC subsystem to Operable in 72 hours. With both the A and B trains being simultaneously inoperable, the system was in a condition that could have prevented fulfillment of a safety function.

The B VE train was fully restored to operable status at 0357 CDT on 11/4/22. TS action 3.7.5 RA B.1/B.2 were exited. The A train was restored to operable on 11/4/22 at 1615 and TS action 3.7.5 RA A.1 was exited.

Cause

The cause of the A VC Compressor trip was a leak on an oil pressure switch, resulting in a trip on low oil pressure.

The cause of the B VE compressor trip on high oil temperature was liquid refrigerant slugging. This resulted in oil migrating into the compressor, causing the compressor to trip.

Reportability and Safety Analysis

Simultaneous inoperability of the A and B VC/VE trains is 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 the structures or systems that are needed to mitigate the consequences of an accident. An ENS report was made to the NRC at 0804 CDT on November 8, 2022 (EN# 56203). The report was pursuant to 10 CFR 50.72(b)(3)(v)(D).

The safety significance of this event was minimal. For approximately 4 hours on 11/4/22, both VC/VE trains were inoperable for TS 3.7.5, Control Room Area Ventilation Air Conditioning. Main Control temperature did not exceed 90 degrees and online risk remained Green throughout the event.

NARRATIVE

Corrective Actions

Corrective actions taken in response to the conditions were:

- Oil was added to the B VE compressor and the compressor was restarted.
- Repairs were made to the A VC compressor oil pressure switch sensing lines.

Previous Occurrences

LER 373-2022-003

On May 20, 2022, both Units 1 and 2 were in Mode 1 and at 100% power. The B train of the Main Control Room Ventilation (VC) and Auxiliary Electric Room Ventilation (VE) was inoperable due to a planned maintenance window. At 0905 and again on 5/23/22 at 1256, various equipment on the A VC/VE train tripped following train swaps to support ongoing maintenance activities. This resulted in the A VC/VE train being declared inoperable. With both the A and B trains being simultaneously inoperable, the system was in a condition that could have prevented fulfillment of a safety function. The cause of the event was inadequate breaker settings.

LER 373-2014-004

On August 28, 2014, both Units 1 and 2 were in Mode 1 at 100% power. The 'B' train of Auxiliary Electric Equipment Room ventilation (VE) was inoperable due to a planned repair of an oil leak. At 1227 hours CDT, the A VE compressor was not found to be cycling on and off resulting in the 'A' train of VC/VE being declared inoperable. With both trains of VC/VE inoperable, this resulted in an event or condition that could have prevented the fulfillment of a safety function. The cause of the event was a shorted wire on liquid line solenoid valve 0RG053A that caused the solenoid valve to close, resulting in the compressor shutting down on low suction pressure. The corrective action was to repair the wiring problem and return the compressor to service.

LER 373-2013-008

On November 22, 2013, both Units 1 and 2 were in Mode 1 at 100% power. The 'A' train of Main Control Room ventilation (VC) was inoperable due to an emergent repair of a Freon leak. At 1920 hours CST, the 'B' AEER Cooler Condenser Fan tripped. An acrid smell was detected coming from the fan motor breaker compartment. The 'B' train of VC and VE was declared inoperable. With both trains of VC/VE inoperable, this resulted in an event or condition that could have prevented the fulfillment of a safety function. The cause of the event was a winding failure of the 'B' AEER Cooler Condenser fan motor. Corrective actions included replacing the failed fan motor and performing a failure analysis to determine the cause of the winding failure.

NARRATIVE

Component Failure Data

Manufacturer: Carrier Corp.
Device: A Control Room HVAC Refrigeration Compressor (Model 5H80)
Component ID: 0VC05CA

Manufacturer: Carrier Corp.
Device: B Aux Electric Equipment Room HVAC Refrigeration Compressor (Model 5H86)
Component ID: 0VE04CB