

10 CFR 50.73

RA22-034

September 23, 2022

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001LaSalle County Station, Units 1 and 2  
Renewed Facility Operating License No. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374Subject: Licensee Event Report 2022-003-01, Supplement to Main Control Room  
and Auxiliary Electric Room HVAC Declared Inoperable Due to Multiple  
Component FailuresIn accordance with 10 CFR 50.73(a)(2)(v)(D), Exelon Generation Company, LLC  
(EGC) is submitting Licensee Event Report (LER) Number 2022-003-01 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



**LICENSEE EVENT REPORT (LER)**

(See Page 3 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/>)

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, Library, and Information Collections Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollections.Resource@nrc.gov](mailto:Infocollections.Resource@nrc.gov), and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk ail: [omb\\_submission@omb.eop.gov](mailto:omb_submission@omb.eop.gov). The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

<b>1. Facility Name</b> LaSalle County Station, Unit 1	<b>2. Docket Number</b> 05000 - 373	<b>3. Page</b> 1 OF 4
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**4. Title**  
Main Control Room and Auxiliary Electric Room HVAC Declared Inoperable Due to Multiple Component Failures.

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
05	20	2022	2022	- 003 -	01	09	23	2022	LaSalle County Station, Unit 2	05000-374
									Facility Name	Docket Number
									NA	NA

<b>9. Operating Mode</b> 1	<b>10. Power Level</b> 100 percent
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**11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)**

<input type="checkbox"/> 10 CFR Part 20	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<b>10 CFR Part 73</b>
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.69(g)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(4)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.71(a)(5)
<input type="checkbox"/> 20.2203(a)(2)(i)	<b>10 CFR Part 21</b>	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(1)(i)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 21.2(c)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(i)
<input type="checkbox"/> 20.2203(a)(2)(iii)	<b>10 CFR Part 50</b>	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 73.77(a)(2)(ii)
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)	

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

**12. Licensee Contact for this LER**

<b>Licensee Contact</b> CJ Smith, Operations Director	<b>Phone Number (Include area code)</b> (815) 415-2200
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**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
D	VI	FAN	C147	Y					

**14. Supplemental Report Expected**

No  Yes (If yes, complete 15. Expected Submission Date)

**15. Expected Submission Date**

Month	Day	Year

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

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. The Main Control Room ventilation envelope consists of both the Main Control Room and the Auxiliary Electric Equipment Room. Both trains of VC and VE were required to be operable at the time of these events.

On 5/20/22 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 probable cause of the events was determined to be inadequate isolation between the A and B VC/VE trains. This allowed the VE return fan to spin backwards resulting in locked rotor amps when the breaker was closed.





# LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

(See NUREG-1022, R.3 for instruction and guidance for completing this form  
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1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
LaSalle County Station, Unit 1	05000- 373	2022	- 003	- 01

**NARRATIVE**

**Plant and System Identification**

LaSalle Country 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: May 20, 2022	Time: 0905 CDT
Reactor Mode(s): 1/1	Mode(s) Name: Power Operation	Power Level: 100%/100%

**Description**

On May 20, 2022 the station was executing a B VC/VE work window and in the following TS actions: 3.7.4 A.1, restore B train to operable status (expires 5/23/22 at 0500) and 3.7.5 A.1, restore B train to operable (expires 6/15/2022 at 0300). The station began procedures to swap to the A train to allow repairs identified during post maintenance testing on the B train. After swapping to A VC/VE, the A VE return fan tripped and immediately tripped after a second attempt to start.

At 0905, the A train was declared inoperable for both TS 3.7.4 (CRAF) and 3.7.5 (MCR ventilation). With both trains of VC/VE inoperable, the Station entered TS 3.7.4 RA E.1 be in mode 3 within 12 hours, TS 3.7.5 RA B.1 to verify control room area temperature less than 90 degrees once per four hours, and RA B.2 to restore one control room area ventilation air conditioning subsystem to operable status within 72 hours.

The Electrical Maintenance department performed basic troubleshooting. The fan was restarted and following sufficient run time of the A VE return fan, the A VC/VE train was declared operable at 1200. TS actions 3.7.5 E.1 and 3.7.4 B.1 and B.2 were exited.

On 5/23/2022 the station began activities to swap to A VC/VE to allow for system restoration on B VC/VE. After swapping to A VC/VE, the A VE return fan tripped at 1256. Operations reset the breaker and restarted the fan. The A VC/VE train was declared inoperable for CRAF (3.7.4) and MCR ventilation (3.7.5). The station entered the following time clocks: 3.7.4 A.1, restore A train to operable status within 7 days, 3.7.5 RA B.1 to verify control room area temperature less than 90 degrees once per four hours, and RA B.2 to restore one control room area ventilation air conditioning subsystem to operable status within 72 hours. (Note: The B train was declared operable for CRAF on 5/20/22 at 1841 following repairs, but the B train remained in the 3.7.5 MCR ventilation LCO for continued maintenance activities from the previous week that resulted in the condition discussed above on 5/23.)

The B train was fully restored to operable status at 1755 on 5/23/22. TS action 3.7.5 B.1/B.2 were exited. The station declared the A train operable on 5/24/22 at 2230 after completion of an Operability evaluation and subsequent run time.

**Cause**

The probable cause of the return fan trips was determined to be inadequate isolation between the A and B VC/VE trains. This allowed the VE return fan to spin backwards resulting in locked rotor amps when the breaker was closed.





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**NARRATIVE**

A contributing cause was identified as inadequate work instructions and procedural guidance in the Maintenance work packages during periodic maintenance of Hydra-motors.

**Reportability and Safety Analysis**

The A and B VC/VE trains of the simultaneous inoperability 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. Two ENS reports were made to the NRC at 1639 CDT on May 20, 2022 (EN# 55905) and at 1815 CDT on May 23, 2022 (EN# 55908). Both reports were pursuant to 10 CFR 50.72(b)(3)(v)(D).

The safety significance of this event was minimal. For approximately 3 hours on 5/20/22, both VC/VE trains were inoperable for CRAF and HVAC (TS 3.7.4 and TS 3.7.5). For approximately 5 hours on 5/23/22, both trains were inoperable for HVAC only (TS 3.7.5). Main Control temperature did not exceed 90 degrees and online risk remained Green throughout the event.

**Corrective Actions**

Corrective actions taken in response to the conditions were:

- Basic troubleshooting was performed.
- Operability evaluation was performed prior to declaring VC/VE operable after failure of the VC return fan.
- Perform inspections and testing of the A and B VC/VE trains. Based on testing results perform repairs and changes to the station PM program as required.
- Update Hydra-motor replacement procedures and work packages.

**Previous Occurrences**

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.



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**NARRATIVE**

**Component Failure Data**

Manufacturer: Carrier Corp.  
Device: A AEER HVAC Return Van (Model: 5H66-607)  
Component ID: 0VE02CA (CAT ID: 32349)