

Exelon Generation Company, LLC
LaSalle County Station
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March 22, 2001

10 CFR 50.73

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

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

In accordance with 10 CFR 50.73(a)(2)(iv)(A), Exelon Generation Company, (EGC), LLC, is submitting Licensee Event Report Number 01-001-00, Docket No. 050-373.

Should you have any questions concerning this letter, please contact Mr. William Riffer, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Respectfully,



Charles G. Pardee
Site Vice President
LaSalle County Station

Attachment: Licensee Event Report

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

IE22

LICENSEE EVENT REPORT (LER)(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NOEB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

FACILITY NAME (1): LaSalle County Station, Unit 1**DOCKET NUMBER (2)**
05000373**PAGE (3)**
1 of 4**TITLE (4)** Reactor Scram due to Electrical Fault on Transformer Yard 345 KV Line C Phase Insulator

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	31	01	01	- 001	- 00	03	22	01	LaSalle County Station, Unit 2	05000374
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)							
POWER LEVEL (10)										
1										
100										
			<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)				
			<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)				
			<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 73.71(a)(4)				
			<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(5)				
			<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> OTHER				
			<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A				
			<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(D)					
			<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)					
			<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)					
			<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)					

LICENSEE CONTACT FOR THIS LER (12)**NAME**

Kent Nelson, System Engineering

TELEPHONE NUMBER (Include Area Code)

(815) 357-6761 Extension 2079

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
SUPPLEMENTAL REPORT EXPECTED (14)					EXPECTED SUBMISSION DATE (15)				
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)					<input checked="" type="checkbox"/> NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines)(16)

On January 31, 2001, at 2147 hours, current from the "C" phase of the 345 KV power line between the Unit 1 main power transformer and the switchyard flashed to ground across a support insulator. The phase-to-ground fault activated the transformer protective relays, resulting in a turbine generator trip and reactor scram.

The cause of the phase-to-ground fault was determined to be an excess of bird excrement that had built up on the support insulator. Corrective actions included replacement of the damaged insulator, and inspection and cleaning of the other insulators. An evaluation to determine how to prevent birds from roosting on the equipment was begun.

The safety consequences of this event were minimal. All safety systems operated as expected. A turbine generator trip is an analyzed condition of moderate frequency. The reactor was safely shut down and recovery performed without incident.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
LaSalle County Station, Unit 1	05000373	01	- 001 -	00	2 of 4

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor, 3489 Megawatts Thermal Rated Core Power

A. CONDITION PRIOR TO EVENT

Unit(s): 1/2 Event Date: 01/31/01 Event Time: 2147 Hours
Reactor Mode(s): 1/1 Power Level(s): 100/100
Mode(s) Name: Run/Run

B. DESCRIPTION OF EVENT

At 2147 hours on January 31, 2001, LaSalle County Station, Unit 1, experienced a turbine generator trip and subsequent reactor scram. Initial indications were of an electrical fault at or near the Unit 1 main power transformer (MPT) [EL]. Witnesses heard a loud boom, and an associated bright flash was seen several miles away. The operators responded to the scram in accordance with management expectations, and the plant responded as expected, with the following exceptions:

- The 1A Circulating Water pump tripped during the power supply fast transfer. The slip guard relay was found tripped. The relay was reset and the pump was restarted without additional corrective action.
- The Division 1 Alternate Rod Insertion failed to reset on scram recovery. A work request was written, and Electrical Maintenance reset the power converters and the system reset successfully.
- A low oil level alarm was received on the 1B Reactor Recirculation pump when the attempt was made to restart it. A containment entry was made to inspect the pump motor, and the oil reservoir level was found about five pints low. There was no sign of a large leak. The reservoir was refilled and the pump started.
- There was an electrical perturbation on Unit 2 that resulted in a loss of the 2A heater drain pump and the 24B and 25B feedwater heaters. Power was stabilized at 930 MWe. The heaters were restored and Unit 2 was returned to full power at 0625 hours on February 1, 2001.

The cause of the main generator trip was determined to be a phase-to-ground fault on the "C" phase of the transmission line between the MPT and the switchyard. The fault activated the differential relay scheme for the MPT, which led to the unit trip and activated the deluge system for the transformers. System digital fault recorders and relaying targets showed that the system responded properly to the fault.

The MPT consists of two Westinghouse 7,000,000 series 625 MVA three phase transformers connected in parallel. Aluminum cable connects the transformers to a common aluminum hard bus, which extends to an A-frame tower, where it is supported by an underslung insulator. Aluminum cable from the 345 KV switchyard is then bolted to the aluminum bus via a pad connection. A strain bell insulator is used to provide lateral support for the cable between the A-frame tower and the next transmission tower.

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

A track of bird excrement approximately one half inch wide was found on the top of the "C" phase underslung support insulator. Arcing was evident across the underslung insulator, as was flashover across the strain-bell insulator. The flash ended at the corona ring at the end of the strain-bell insulator, which was heavily damaged. The transmission line was also damaged. An inspection of the surrounding area found no other secondary damage from the event.

This event is reportable pursuant to 10 CFR 50.73(a)(2)(iv) as an event that resulted in an automatic actuation of the reactor protection system.

C. CAUSE OF EVENT

The root cause of the event was a build up of bird excrement, which resulted in tracking across the underslung support insulator. The most probable initiator of the tracking was the weather conditions just prior to the event. The air temperature had increased and a light, misty rain was falling, which is postulated to have washed the excrement down the side of the underslung insulator.

D. SAFETY ANALYSIS

The safety consequences of this event were minimal. No equipment failed to operate during this event. The potential for a turbine generator trip is an analyzed condition of moderate frequency (Updated Final Safety Analysis Report, Section 15.2.3, "Turbine Trip".) The reactor was safely shut down and recovery performed without incident.

E. CORRECTIVE ACTIONS

Corrective Actions:

- 1) The damaged insulators and transmission line were repaired.
- 2) The other Unit 1 insulators and the MPT were inspected and cleaned.

Corrective Action to Prevent Recurrence:

- 3) Substation Engineering will investigate and design appropriate measures to prevent birds from roosting on "A" frame structures.
- 4) LaSalle Station, with the assistance of Transmission and Distribution Engineering, will determine long term plans to address the bird issue.

F. PREVIOUS OCCURRENCES

LER NUMBER	TITLE
LER 373/90-006	Reactor Scram Caused By Generator Trip Due To B Phase Insulator Failure And Subsequent Flashover To Ground

On March 28, 1990, the "B" phase support insulator on the same Unit 1 tower failed. This was a catastrophic failure, typical of internal breakdown as approved to the surface damage caused by the tracking and phase-to-ground arcing in this most recent event. There is no indication that this most recent trip was caused by a failure of the insulator.

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

G. COMPONENT FAILURE DATA

Since no component failure occurred, this section is not applicable.