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Exelon Generation®

April 7, 2016

U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTENTION: Document Control Desk

SUBJECT: R.E. Ginna Nuclear Power Plant
Renewed Facility Operating License No. DPR-18
Docket No. 50-244

LER 2016-001, Loss of Station Auxiliary Transformer 12A Resulting in Automatic Start of Emergency Diesel Generator A due to Undervoltage Signals to Safeguards Buses 14 & 18

The attached Licensee Event Report (LER) 2016-001 is submitted under the provisions of NUREG-1022, Event Reporting Guidelines. There are no new commitments contained in this submittal. This submittal is for revision 0 of the LER.

Should you have any questions regarding this submittal, please contact Thomas Harding at 315-791-5219.

Sincerely,

WC/kh

Attachment: LER 2016-001

cc: NRC Regional Administrator, Region I
NRC Project Manager, Ginna
NRC Resident Inspector, Ginna

IE22
NRR

WPLNRC-1003068

bcc: J.E. Pacher
W.B. Carsky
T.L. Harding
D.P. Ferraro
D. Blankenship
R. Everett
J.T. Zapetis
L. Lynch
D. Gudger

Attachment

LER 2016-001

NRC FORM 366 (11-2015) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2018

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 and Information Collections Branch (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 Page 2 for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
R. E. Ginna Nuclear Power Plant	05000244	1 OF 4

4. TITLE

Loss of Station Auxiliary Transformer 12A resulting in automatic start of Emergency Diesel Generator A due to undervoltage signals to safeguards buses 14 and 18.

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
02	11	2016	2016	- 001	- 00	04	07	2016		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 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)
	☐ 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)
100	☐ 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)*
Thomas Harding, Regulatory Assurance Manager	315-791-5219

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	EA	XFMR	W120	YES					

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO				

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On 02/11/2016 at 2305, Ginna Station experienced a loss of Station Auxiliary Transformer 12A, causing Emergency Diesel Generator A to automatically start due to undervoltage signals to safeguards buses 14 and 18. Station Auxiliary Transformer 12A failed due to a high side phase to phase internal fault with relays for overcurrent and differential current actuated. All plant systems responded as designed. Control room operators stabilized the plant per abnormal operating procedures. The plant was placed in 100/0 electrical lineup on the off-site circuit 767 with Emergency Diesel Generator A secured. Station Auxiliary Transformer 12A was replaced with a spare and the plant was restored to normal off-site power line-up on 02/20/2016 at 0018.

This event is reportable under 10CFR50.73(a)(2)(iv)(A) as a valid system actuation that was not part of a pre-planned sequence during testing.

NRC FORM 366A (11-2015) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2018

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LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
R. E. Ginna Nuclear Power Plant	05000-244	2016	- 001	- 00

NARRATIVE

DESCRIPTION OF EVENT

A. PLANT OPERATING CONDITIONS BEFORE THE EVENT:

The reactor was in Operational Mode 1 at 100% power, Reactor Coolant System pressure was 2235 psig and temperature 574 degrees F. The offsite electrical system was in the normal lineup, with each of the two off-site circuits providing power to the four 480 volt safeguards buses via the two station auxiliary transformers. There were no structures, systems or components inoperable at the start of the event which contributed to the event.

B. DESCRIPTION OF EVENT:

On February 11, 2016 at 2305 hours, Ginna experienced a loss of off-site power circuit 7T when breaker 52/7T tripped due to Station Auxiliary Transformer 12A failure. Emergency Diesel Generator A started and assumed the loads for safeguards buses 14 & 18. All systems operated as designed. The plant remained at 100 percent power throughout the event.

C. DATES AND APPROXIMATE TIMES OF MAJOR OCCURRENCES:

February 11, 2016:

- 2305 hours – Operations received indication of loss of off-site power circuit 7T. Emergency Diesel Generator A started and loaded safeguards buses 14 & 18. Station Auxiliary Transformer 12A was determined to be the failed component with indication from overcurrent and differential relays tripped. Technical Specification LCO 3.8.1 was entered.
- 2306 hours - Operators entered Emergency Operating Procedure AP-ELEC.1 for loss of 12A Bus.
- 2325 hours - Operators started Equipment Restoration Procedure ER-ELEC.1 for restoration of off-site power, in order to supply all loads from off-site circuit 767.

February 12, 2016:

- 0032 hours - Station Auxiliary Transformer 12A was removed from service and the electric plant was placed in 100/0 lineup. In this lineup, off-site power circuit 767 provides service to all four of the 480 volt safeguards buses via Station Auxiliary Transformer 12B.
- 0052 hours – Technical Specification LCO 3.8.1 was exited with power to safeguards buses 14 and 18 restored from off-site power circuit 767.
- 0053 hours - Emergency Diesel Generator A was secured.
- 0127 hours - Abnormal Operating Procedure AP-ELEC.1 was exited after transferring all loads to off-site circuit 767 via ER-ELEC.1.

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R. E. Ginna Nuclear Power Plant	05000-244	2016	- 001	- 00

NARRATIVE

- 0351 hours - Notification of Emergency Diesel Generator A start, event # 51730 was made per 10CFR50.72(b)(3)(iv)(A)

February 12-19, 2016:

- Activities performed by the station to replace Station Auxiliary Transformer 12A with a spare transformer.

February 19, 2016:

- 1813 hours – Replacement transformer energized.

February 20, 2016:

- 0018 hours: Operations established the Normal off-site power lineup (two off-site power feeds), as was the pre-event condition, by completing procedure O-6.9.2.

D. CAUSE OF EVENT

A causal analysis was performed by the station. Electrical testing revealed the cause of the transformer failure appears to be a high side "C" phase to phase internal fault. There was no external damage to the transformer or surrounding area as a result of the fault.

The failed transformer was model Westinghouse serial number RBR-6831 and had been in service for 46 years. There was no indication or warning of impending failure.

The cause of this event per NUREG-1022 Cause Code X, as the failure is attributed to an internal high side fault due to service related insulation degradation.

This event was entered into the site corrective action program (AR 02625128).

An immediate action was performed verifying normal parameters in the remaining transformers. This was completed by reviewing Dissolved Gas Analyzer results for the other transformers. No issues were identified.

E. CORRECTIVE ACTIONS

An on-site spare transformer manufactured by Siemens was placed into service and the unit was restored to normal off-site power lineup.

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NARRATIVE

F. SAFETY CONSEQUENCES

Based on the above considerations, this event is not considered to have had any significant effect on the health and safety of the public. The Emergency Diesel Generator A and redundant off-site power circuit with Station Auxiliary Transformer 12B performed as expected.

G. PREVIOUS SIMILAR OCCURRENCES

A review of Ginna LERs submitted during the last five years was completed with the following similar occurrence identified (loss of an offsite circuit resulting in an Emergency Diesel Generator start):

LER 2012-001, Automatic Start of "B" Emergency Diesel Generator Caused by Loss of Offsite Circuit 767 Due To Wildlife"