Maria Korsnick
Vice President

1503 Lake Road
Ontario, New York 14519-9364
585.771.3494
585.771.3943 Fax
maria.korsnick@constellation.com

Constellation Energy
R.E. Ginna Nuclear Power Plant

May 25, 2005

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: **R.E. Ginna Nuclear Power Plant**
Docket No. 50-244

LER 2005-002, Emergency Diesel Generator Start Resulting From Loss of Off-Site Power Circuit 751

The attached Licensee Event Report (LER) 2005-002 is submitted in accordance with 10 CFR 50.73, Licensee Event Report System, item (a)(2)(iv)(A). This event has in no way affected the public's health and safety. There are no new commitments contained in this submittal. Should you have questions regarding the information in this submittal, please contact Mr. George Wrobel at (585) 771-3535 or George.Wrobel@constellation.com.

Very truly yours,

Mary G. Korsnick

Mary G. Korsnick

Attachments: (1) LER 2005-002

cc: S. J. Collins, NRC
D. M. Skay, NRC
Resident Inspector, NRC (Ginna)

1001320

IE22

ATTACHMENT (1)

LER 2005-002

NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

Estimated burden per response to comply with this mandatory information collection request: 50 hours. 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, or by internet e-mail to bjs1@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 information collection does not display a currently valid OMB control number, the NRC

LICENSEE EVENT REPORT (LER)

(See reverse 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 6

4. TITLE

Emergency Diesel Generator Start Resulting From Loss of Off-Site Power Circuit 751

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	01	2005	2005	- 002 -	00	05	25	2005		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE	6
10. POWER LEVEL	0

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
20.2203(a)(1)	50.36(c)(1)(i)(A)	X 50.73(a)(2)(iv)(A)	73.71(a)(4)
20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)
20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	
20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
George Wrobel, Director of Licensing	(585) 771-3535

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
C	FC	LAR	G080	Y					

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

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

On April 1, 2005, a faulted lightning arrester resulted in the loss of off-site Circuit 751. With the electrical system in a 50/50 alignment, the loss of Circuit 751 resulted in the loss of safeguards busses 16 and 17. The B Emergency Diesel Generator (EDG) started automatically and re-energized the safeguards busses as designed.

Corrective action to prevent recurrence is outlined in Section V.B.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
R.E. Ginna Nuclear Power Plant	05000244	2005	-- 002 --	00	2 OF 6

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

I. PRE-EVENT PLANT CONDITIONS:

On April 1, 2005 the plant was in Mode 6 with refueling in progress. The on-site electrical system was in a 50/50 lineup configuration, meaning that each off-site circuit was providing power to two (2) of the four (4) 480 volt safeguards busses.

II. DESCRIPTION OF EVENT:

A. EVENT:

At approximately 1402, off-site power Circuit 751 was lost due to a distribution system lightning arrester fault at Rochester Gas & Electric (RG&E) Substation 204. Because the plant's electric distribution system was in a 50/50 lineup, this resulted in the temporary loss of two (2) of the four (4) safeguards busses (Bus 16 and Bus 17). The B Emergency Diesel Generator (EDG) automatically started and supplied power to these busses as designed. Refueling operations were immediately halted. Core cooling was momentarily interrupted and was promptly restored when the safeguard bus was re-energized. The operating Spent Fuel Pool (SFP) cooling loop was being powered from the opposite train and was not affected. The refueling cavity was flooded, and the Reactor Coolant System (RCS) temperature and SFP temperature were maintained at 74 degrees F throughout the event. Off-site power was realigned and all plant loads were returned to off-site power on the redundant source (Circuit 767).

B. INOPERABLE STRUCTURES, COMPONENTS, OR SYSTEMS THAT CONTRIBUTED TO THE EVENT:

None

C. DATES AND APPROXIMATE TIMES OF MAJOR OCCURRENCES:

- April 1, 2005, 1402 EST: Event Date and Time, Loss of off-site power Circuit 751 and B EDG start.
- April 1, 2005, 1440 EST: Electrical system placed in the 100/0 off-site power alignment on Circuit 767
- April 1, 2005, 1450 EST: B EDG removed from service.
- April 1, 2005, 1630 EST: Notification of B EDG start, event #41558, under 10CFR50.72(b)(3)(iv)(A).

- April 1, 2005, 1759 EST: Circuit 751 restored.
- April 3, 2005, 2103 EDST: Electrical system returned to a 50/50 alignment.

D. OTHER SYSTEMS OR SECONDARY FUNCTIONS AFFECTED:

None, since there were no failures of any components with multiple functions.

E. METHOD OF DISCOVERY:

The condition was immediately apparent from plant indications and response in the Control Room.

F. SAFETY SYSTEM RESPONSES:

All safety systems functioned as designed.

III. CAUSE OF EVENT:

The cause of the event was a faulted distribution circuit lightning arrester. One of three phase lightning arresters faulted to ground on the power source distribution circuit. The lightning arrester was located on the circuit overhead line at the originating substation (204). The circuit and its lightning arresters are owned by the local utility. The failure of the arrester was apparently age related.

This event is NUREG-1022 Cause Code (C), "External Cause"

IV. ASSESSMENT OF THE SAFETY CONSEQUENCES OF THE EVENT:

This event is reportable in accordance with 10 CFR 50.73, Licensee Event Report System, item (a)(2)(iv)(A), which requires a report of, "Any event or condition that resulted in manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B) of this section, except when:
(1) The actuation resulted from and was part of a pre-planned sequence during testing or reactor operation; or
(2) The actuation was invalid and;
(i) Occurred while the system was properly removed from service; or
(ii) Occurred after the safety function had been already completed."

UFSAR 8.3.1.2.4.1 states in part:

"The electrical system equipment is arranged so that no single contingency can inactivate enough engineered safety features equipment to jeopardize the plant safety."

"Two independent offsite power sources are available to supply the engineered safety features equipment. These offsite sources each feed an independent auxiliary (startup) transformer. Offsite circuit 751 feeds transformer 12A. Offsite circuit 767 feeds transformer 12B. Each transformer is capable of supplying all plant engineered safety features equipment."

The B EDG operated as designed throughout the event, ensuring a reliable source of power to the AC emergency busses at all times.

One off-site power circuit (767) was not affected and remained in service. It was subsequently aligned to carry all off-site loads until Circuit 751 could be restored. This is consistent with Ginna Technical Specifications Section 3.8.2.

Therefore, it was determined that the plant responded within it's design and licensing basis, and that the public's health and safety was assured at all times.

V. CORRECTIVE ACTIONS:

A. ACTION TAKEN TO RETURN AFFECTED SYSTEMS TO PRE-EVENT NORMAL STATUS:

- Off-site power was restored to Bus 16 and Bus 17.
- Lightning arresters were replaced on all three phases of Circuit 751.
- Circuit 751 was restored to service.

B. ACTION TAKEN OR PLANNED TO PREVENT RECURRENCE:

The circuit and lightning arresters are owned by the local utility. The utility does not typically perform periodic diagnostic testing on distribution circuit lightning arresters, as they are considered run to failure components. Due to the importance of Circuit 751 as a Ginna Station offsite power source, the utility will perform future periodic power factor testing on the lightning arresters on the same maintenance schedule as the circuit's voltage regulator and circuit breaker. The redundant offsite circuit (767) was also reviewed to ensure its lightning arresters are tested periodically.

Ginna has performed a self assessment and risk analysis of Circuit 751, and as a result is evaluating possible modifications to the off-site power system to improve reliability.

VI. ADDITIONAL INFORMATION:

A. FAILED COMPONENTS:

None

B. PREVIOUS LERs ON SIMILAR EVENTS:

The following LERs were the result of the loss of Circuit 751. Although these events resulted in the auto start of an Emergency Diesel Generator, only one (2003-005) resulted in a plant trip because of the operating mode and electrical configuration at the time of the event.

- 2003-006
- 2003-005
- 1998-005
- 1997-002
- 1995-006
- 1995-007
- 1994-012
- 1994-005
- 1992-007
- 1991-002

C. THE ENERGY INDUSTRY IDENTIFICATION SYSTEM (EIIS) COMPONENT FUNCTION IDENTIFIER AND SYSTEM NAME OF EACH COMPONENT OR SYSTEM REFERRED TO IN THIS LER:

COMPONENT	IEEE 803 FUNCTION IDENTIFIER	IEEE 805 SYSTEM IDENTIFICATION
Off-Site Power Circuit 751	JX	EB
Emergency Diesel Generators	DG	EK
Lightning Arrester	LAR	FC

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
R.E. Ginna Nuclear Power Plant	05000244	2005	-- 002 --	00	6 OF 6

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

D. SPECIAL COMMENTS:

Ginna submitted an operating experience report on the INPO network (OE20575) to alert the industry of this issue.