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Constellation Energy
Nine Mile Point Nuclear Station, LLC

July 7, 2008

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

ATTENTION: Document Control Desk

SUBJECT: Nine Mile Point Nuclear Station
Unit No. 1 Docket No. 50-220

Licensee Event Report 2008-01, Loss of Offsite Power due to an Equipment Malfunction

Gentlemen:

In accordance with 10 CFR 50.73(a)(2)(iv)(A) and 10 CFR 50.73(a)(2)(v)(D), please find attached Licensee Event Report 2008-01, Loss of Offsite Power due to an Equipment Malfunction.

Should you have questions regarding the information in this submittal, please contact T. F. Syrell, Licensing Director, at (315) 349-5219.

Very truly yours,

SLB/MHS

Attachment: Licensee Event Report 2008-01, Loss of Offsite Power due to an Equipment Malfunction

cc: S. J. Collins, NRC
R. V. Guzman, NRC
Resident Inspector, NRC

ATTACHMENT

LICENSEE EVENT REPORT 2008-01

LOSS OF OFFSITE POWER DUE TO AN EQUIPMENT MALFUNCTION

Nine Mile Point Nuclear Station, LLC
July 7, 2008

ONRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 08/31/2010

Estimated burden per response to comply with this mandatory 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 and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Nine Mile Point Unit 1	05000220	1 OF 5

4. TITLE
Loss of Offsite Power due to an Equipment Malfunction

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
									James A. Fitzpatrick Nuclear Power Plant	05000333
05	13	2008	2008	001	00	07	07	2008	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE: N

10. POWER LEVEL: 100

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

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

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
Terry Syrell, Licensing Director	(315) 349-5219

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

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 May 13, 2008, at 0806 hours, with Nine Mile Point Unit 1 (NMP1) operating at 100% steady state reactor power and one of two 115 kV offsite power lines (Line 1) out of service for planned maintenance, a loss of the second 115 kV offsite power line (Line 4) occurred. Line 4 is a shared line with the James A. Fitzpatrick Nuclear Power Plant. As a result of the loss of Line 4, both emergency diesel generators auto-started and commenced carrying emergency loads. The Loss of Offsite Power (LOOP) also resulted in tripping of one of five Reactor Recirculation pumps and tripping of the operating Spent Fuel Pool (SFP) cooling pump, as designed. Operators entered applicable Special Operating Procedures (SOPs) and took appropriate corrective actions. At 0825 hours, an Unusual Event (UE) was declared and the required notifications were made.

The cause for the loss of Line 4 was external to Nine Mile Point (NMP) and was determined to be a switchyard equipment malfunction at the James A. Fitzpatrick Nuclear Power Plant switchyard.

On May 13, 2008, at 0843 hours, Line 1 was restored to service. The UE was terminated at 1022 hours and the required notifications were made. On May 16, 2008, at 0515 hours, Line 4 was restored to service.

NARRATIVE

I. DESCRIPTION OF EVENT

A. PRE-EVENT PLANT CONDITIONS:

On May 13, 2008, Nine Mile Point Unit 1 (NMP1) was in the power operating condition at approximately 100% steady state reactor power.

At 0637 hours, NMP1 removed one of two 115 kV offsite power lines (Line 1) from service for planned maintenance.

B. EVENT:

At 0806 hours, the unit experienced a Loss of Offsite Power (LOOP) when Line 4, which is a shared line with James A. Fitzpatrick Nuclear Power Plant, was lost. Line 4 is the second of two offsite power lines. The LOOP caused the loss of two 4160 V vital buses and subsequent start of the emergency diesel generators to carry emergency loads. The loss of these vital buses caused the operating Spent Fuel Pool (SFP) cooling pump to trip, as designed. Also, the LOOP caused the loss of a third 4160 V bus, which resulted in the trip of one of five Reactor Recirculation pumps as designed. The loss of Reactor Recirculation pump resulted in reduction of reactor thermal power to 90%. Upon the loss of the Reactor Recirculation pump and the SFP cooling pump, operators entered applicable Special Operating Procedures (SOPs). Reactor recirculation flow was stabilized and SFP cooling was restored. Operators also commenced recovery of Line 1, which had been removed from service for planned maintenance. At 0825 hours, the Shift Manager declared an Unusual Event (UE) and the required notifications were made. At 0843 hours, Line 1 was restored to service. At 1022 hours, the UE was terminated and the required notifications were made.

Line 4 was restored to service on May 16, 2008, at 0515 hours.

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

115 kV offsite power Line 1 (taken out of service for planned maintenance)

115 Kv offsite power Line 4 (failed)

NARRATIVE

D. DATES AND APPROXIMATE TIMES OF MAJOR OCCURRENCES:

May 13, 2008, 0637: Removed Line 1 from service for planned maintenance

May 13, 2008, 0806: Lost Line 4

May 13, 2008, 0825: Declared a UE

May 13, 2008, 0843: Restored Line 1 to service

May 13, 2008, 1022: Terminated the UE

May 16, 2008, 0515: Restored Line 4 to service

E. OTHER SYSTEMS OR SECONDARY FUNCTIONS AFFECTED:

Other than those described under section B above, no other systems or secondary functions were affected.

F. METHOD OF DISCOVERY:

This event was immediately apparent by control room indications and annunciations.

G. MAJOR OPERATOR ACTION:

In response to the LOOP, trip of a Reactor Recirculation pump, and trip of the operating SFP cooling pump, the operators entered applicable Special Operating Procedures and took appropriate corrective actions to stabilize reactor recirculation flow and to restore SFP cooling.

At 0825 hours, the Shift Manager declared a UE and made required notifications.

The operators commenced recovery of Line 1, which had been removed from service for planned maintenance. At 0843 hours, Line 1 was restored to service.

NARRATIVE

H. SAFETY SYSTEM RESPONSES:

The LOOP resulted in the loss of two 4160 V vital buses and the subsequent start of emergency diesel generators to carry the emergency loads.

II. CAUSE OF EVENT:

The event is a NUREG-1022 Cause Code C, "External Cause."

The apparent cause of this event is an equipment malfunction associated with the James A. Fitzpatrick Nuclear Power Plant's switchyard.

NMP Condition Report 2008-4077 applies to this LER.

III. ANALYSIS OF THE EVENT:

This event is reportable in accordance with 10 CFR 50.73(a)(2)(iv)(A) because of the automatic start of Division 1 and 2 Emergency Diesel Generators. The event is also reportable in accordance with 10 CFR 50.73(a)(2)(v)(D) because of loss of both 115 kV offsite power sources.

The loss of both 115 kV offsite power lines is described in the Updated Final Safety Analysis Report (UFSAR). Section IX.B.1.2 describes failure modes for the 115 kV offsite power system. Actual system response was in accordance with the expected response described in the UFSAR.

The trip of a reactor recirculation pump had a minimal effect on safety. UFSAR Section XV.B.3.7 analysis bounds this transient and concludes that the Minimum Critical Power Ratio was not challenged. Reactor power responded as expected for the trip of the reactor recirculation pump.

The trip of the operating SFP cooling pump resulted in the SFP temperature rising to 87 degrees F (a 2 degrees increase), well below the maximum limit of 140 degrees F.

When Line 1 was taken out of service for planned maintenance, the risk was assessed and managed in accordance with the site integrated risk management procedure.

IV. CORRECTIVE ACTIONS:

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

On May 13, 2008, at 0843 hours, Line 1, which had been removed from service for planned maintenance, was restored to service. On May 16, 2008, at 0515 hours, Line 4 was restored to service after completion of corrective action at the James A. Fitzpatrick Nuclear Power Plant.

NARRATIVE

B. ACTION TAKEN OR PLANNED TO PREVENT RECURRENCE:

Nine Mile Point Nuclear Station will review the James A. Fitzpatrick Nuclear Power Plant's causal analysis for extent of condition pertinent to NMP1 and NMP2.

V. ADDITIONAL INFORMATION:

A. FAILED COMPONENTS:

There were no failed components at NMP1 that initiated or contributed to this event.

B. PREVIOUS LERs ON SIMILAR EVENTS:

The following events occurred at Nine Mile Point Nuclear Station:

08/14/2003, Nine Mile Point Unit 1 scram due to a loss of offsite power during the Northeast Blackout (LER 2003-02)

08/14/2003, Nine Mile Point Unit 2 scram due to a loss of offsite power during the Northeast Blackout (LER 2003-02)

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
115 kv offsite power line	NA	FK
Switchgear	SWGR	EA
Emergency Diesel Generator	DG	EK
Reactor Recirculation Pump	P	AD
Emergency Power Distribution Buses	BU	EB
Spent Fuel Pool Cooling Pump	P	DA
Switchyard	NA	FK

D. SPECIAL COMMENTS:

None