

Constellation Energy

Nine Mile Point Nuclear Station

P.O. Box 63
Lycoming, NY 13093

February 17, 2006

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

ATTENTION: Document Control Desk

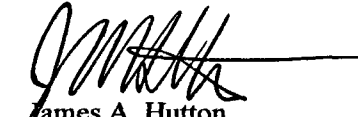
SUBJECT: Nine Mile Point Nuclear Station
Unit No. 1; Docket No. 50-220

Licensee Event Report 05-004, "Operation Prohibited by Technical
Specifications due to Unrevealed Inoperability of One Off-site Power Source"

In accordance with 10 CFR 50.73(a)(2)(i)(B), we are submitting Licensee Event Report 05-004,
"Operation Prohibited by Technical Specifications due to Unrevealed Inoperability of One Off-site
Power Source."

Should you have questions regarding the information in this submittal, please contact M. H. Miller,
Licensing Director, at (315) 349-1510.

Very truly yours,


James A. Hutton
Plant General Manager

JAH/RF/sac
Attachment

cc: S. J. Collins, NRC Regional Administrator, Region I
L. M. Cline, NRC Senior Resident Inspector

IE22

bcc: L. S. Larragoite
C. W. Fleming, Esquire
T. J. O'Connor
J. A. Hutton
M. H. Miller
J. L. Lyon

NMP1L 2025

COMMITMENTS IDENTIFIED IN THIS CORRESPONDENCE:

- NONE

Responsible Person/Organization:

Due Date:

SAR/TSB Revision Required? If yes, No

Type:

Initiation Date:

NCTS No.:

Posting Requirements for Responses -- NOV/Order **No**

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

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.

1. FACILITY NAME

Nine Mile Point Unit 1

2. DOCKET NUMBER

05000220

3. PAGE

1 OF 4

4. TITLE

Operation Prohibited by Technical Specifications due to Unrevealed Inoperability of One Off-site Power Source

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
12	19	2005	2005	- 004 -	00	02	17	2006	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)			
1	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
10. POWER LEVEL	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<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)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME

Mary H. Miller, Licensing Director

TELEPHONE: NUMBER (Include Area Code)

(315) 349-1510

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

☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE)☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On December 19, 2005, at 1509 hours, National Grid (NG) Regional Control notified the Nine Mile Point Unit 1 (NMP1) Control Room that a Traveling Operator had noted abnormal readings on one of the 115 KV off-site power lines (Line 4) and suggested the indication could be the result of an open phase. The James A. Fitzpatrick Nuclear Power Plant (JAF) Control Room was contacted and an investigation revealed a failure of the bus bar connector on the "A" phase of Line 4 in the JAF switchyard. The unknown failure had existed from November 29, 2005, to December 19, 2005, and during that time, NMP1 exceeded the Technical Specification (TS) 3.6.3.b, "Emergency Power Sources," allowed out-of-service time for inoperable off-site power line. Additionally, during that time, NMP1 exceeded the TS 3.6.3.c allowed out-of-service time for inoperable diesel-generator power system on two occasions. Line 4 was restored to operable status on December 20, 2005, at 1512 hours.

The cause of the failure to identify the Line 4 failure is a functional design deficiency regarding the adequacy of Control Room indications and alarms. Because of the design of off-site power to JAF and NMP1, and alarms and indications, there was no interruption of power to either unit and no alarm to alert personnel of the abnormal situation. There is an ampere loading indication for both off-site lines at NMP1, but the typical operating value falls in an uncalibrated and unmarked area of the meter.

Corrective actions have been developed such that, when completed, a loss of current on any of the phases of off-site power sources will be accompanied by a plant process computer alarm and will be clearly visible on control panel indications.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2) NUMBER (2)	LER NUMBER (6)			PAGE (3)
Nine Mile Point Unit 1	05000220	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		2005	-- 004 --	00	

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

I. Description of Event

On December 19, 2005, at 1509 hours, National Grid (NG) Regional Control notified the Nine Mile Point Unit 1 (NMP1) Control Room that a Traveling Operator had noted abnormal readings on one of the 115 KV off-site power lines (Line 4) and suggested the indication could be the result of an open phase. The James A. Fitzpatrick Nuclear Power Plant (JAF) Control Room was contacted and an investigation revealed a failure of the bus bar connector on the "A" phase of Line 4 in the JAF switchyard. The unknown failure had existed from November 29, 2005, to December 19, 2005. Line 4 was declared inoperable as of November 29, 2005, and removed from service for repairs. The failure was not flagged by any alarms at NMP1, JAF or NG installations and was not noted by Control Room operators at NMP1 or JAF.

During the time that the unknown failure existed, NMP1 exceeded the Technical Specification (TS) 3.6.3.b, "Emergency Power Sources," allowed out-of-service time for inoperable off-site power line. Line 4 was inoperable for longer than the allowed out-of-service time of 7 days. Additionally, during that time, NMP1 exceeded the TS 3.6.3.c allowed out-of-service time for inoperable diesel-generator power system on two occasions. After Line 4 became inoperable on November 29, 2005, Emergency Diesel Generator (EDG) 102 was already inoperable for planned maintenance and was restored to operable status 4 days later, on December 3, 2005, at 0406 hours. Thus, TS 3.6.3.c allowed EDG out-of-service time of 24 hours was exceeded. On another occasion, on December 12, 2005, at 1612 hours, EDG 103 was declared inoperable and restored to operable on December 13, 2005, at 1718 hours, which is another instance of non-compliance with TS 3.6.3.c.

Line 4 was restored to operable status on December 20, 2005, at 1512 hours.

II. Cause of Event

The underlying cause of failure to identify the Line 4 deviation is a functional design deficiency regarding the adequacy of Control Room indications and alarms. Because of the "ring bus" design of off-site power to JAF and NMP1 and alarms and indications, there was no interruption of power to either unit and no alarm to alert personnel of the abnormal situation. There is ampere loading indication for both off-site lines at NMP1, but the typical operating value falls in an uncalibrated and unmarked area of the meter.

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

III. Analysis of Event

This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications...."

There were no actual safety consequences associated with this event. The most risk significant time period was during the overlapping of Line 4 out-of-service concurrent with EDG 102 out-of-service. Prior to taking EDG 102 out of service, the risk assessment of the maintenance activities resulted in the following risk management actions being taken:

- The redundant EDG was verified operable and no elective testing or maintenance activities were scheduled on the redundant (operable) EDG
- No elective testing or maintenance activities were scheduled in the 115 kV switchyard or on the 115 kV power supply lines and transformers which could cause a line outage or challenge offsite power availability
- The NMP1 diesel driven firewater pump (DFP) was verified operable as a feedwater makeup source to the NMP1 reactor pressure vessel (RPV)
- The Nine Mile Point Unit 2 DFP and cross-tie to NMP1 were verified operable as a feedwater makeup source to the NMP1 RPV.

The incremental core damage probability for Line 4 being unavailable for the duration of the event was calculated as $8.7E-8$.

Based on the above, the event did not pose a threat to the health and safety of the public or plant personnel.

IV. Corrective Actions

A. Action Taken to Return Affected Systems to Pre-Event Normal Status

On December 20, 2005, at 1317 hours, NMP1 was notified by the JAF that repairs were complete. The same day, at 1512 hours, Line 4 was returned to service and declared operable based on the plant process computer indications.

B. Action Taken or Planned to Prevent Recurrence

NOTE: There are no NRC regulatory commitments in this Licensee Event Report.

Corrective actions have been developed such that, when completed, a similar failure will be accompanied by an alarm and will be clearly visible on the control panel indications. These actions include:

- Implement a plant process computer alarm modification for low amperage on all 3 phases of off-site power lines.
- As a compensatory measure, amperage readings from the plant process computer of 3 phases of both off-site power lines will be verified and logged twice each shift until the corrective action (alarm modification) is implemented.

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

V. Additional Information

A. Failed Components:

None

B. Previous similar events:

None

C. Identification of components referred to in this Licensee Event Report:

Components

IEEE 805 System ID

IEEE 803.A Function

115 kV Offsite Power
Emergency Diesel Generators

FK
EK

N/A
DG