

LICENSEE EVENT REPORT (LER)

|   |                                      |                      |
|---|--------------------------------------|----------------------|
| FACILITY NAME (1)<br>Nine Mile Point Unit I | DOCKET NUMBER (2)<br>0 5 0 0 0 2 2 0 | PAGE (3)<br>1 OF 0 3 |
|---|--------------------------------------|----------------------|

TITLE (4)  
Reactor Building Emergency Ventilation Initiation

| EVENT DATE (5)  |     |      | LER NUMBER (6)     |                   |                 | REPORT DATE (7)  |     |      | OTHER FACILITIES INVOLVED (8)                       |  |                  |   |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
|---|-----|------|--------------------|-------------------|-----------------|------------------|-----|------|---|--|------------------|---|--|--|--|--|--|--|--|--|--|--|--|-------------------------|--|--|-------------|--|--|-----------|--|--|---|--|--|----------|--|--|-------------------------------|--|--|--------------------|--|--|-------------|--|--|---|--|--|----------|--|--|--|--|--|------------------|--|--|-------------|--|--|---|--|--|--|--|--|--|--|--|-------------------|--|--|----------------|--|--|---|--|--|--|--|--|------------------|--|--|-----------------|--|--|---|--|--|--|--|--|-----------------|--|--|------------------|--|--|--|--|--|
| MONTH   | DAY | YEAR | YEAR               | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH            | DAY | YEAR | FACILITY NAMES                                      |  | DOCKET NUMBER(S) |   |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
| 0 4   | 2 2 | 8 6  | 8 6                | 0 0               | 8 0             | 0 5              | 2 1 | 8 6  |   |  | 0 5 0 0 0        |   |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="12">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)</td> </tr> <tr> <td colspan="3">OPERATING MODE (9)<br/>N</td> <td colspan="3">20.41(z)(b)</td> <td colspan="3">20.406(c)</td> <td colspan="3"><input checked="" type="checkbox"/> 50.73(a)(2)(iv)</td> <td colspan="3">73.71(b)</td> </tr> <tr> <td colspan="3">POWER LEVEL (10)<br/>0 1 0 1 0</td> <td colspan="3">20.407(a)(1)(v)(i)</td> <td colspan="3">50.36(e)(1)</td> <td colspan="3"><input type="checkbox"/> 50.73(a)(2)(v)</td> <td colspan="3">73.71(c)</td> </tr> <tr> <td colspan="3"></td> <td colspan="3">20.406(a)(1)(ii)</td> <td colspan="3">50.36(e)(2)</td> <td colspan="3"><input type="checkbox"/> 50.73(a)(2)(vii)</td> <td colspan="3" rowspan="4">OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td colspan="3"></td> <td colspan="3">20.406(a)(1)(iii)</td> <td colspan="3">50.73(a)(2)(i)</td> <td colspan="3"><input type="checkbox"/> 50.73(a)(2)(viii)(A)</td> </tr> <tr> <td colspan="3"></td> <td colspan="3">20.406(a)(1)(iv)</td> <td colspan="3">50.73(a)(2)(ii)</td> <td colspan="3"><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td> </tr> <tr> <td colspan="3"></td> <td colspan="3">20.406(a)(1)(v)</td> <td colspan="3">50.73(a)(2)(iii)</td> <td colspan="3"><input type="checkbox"/> 50.73(a)(2)(ix)</td> </tr> </table> |     |      |                    |                   |                 |                  |     |      |   |  |                  | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11) |  |  |  |  |  |  |  |  |  |  |  | OPERATING MODE (9)<br>N |  |  | 20.41(z)(b) |  |  | 20.406(c) |  |  | <input checked="" type="checkbox"/> 50.73(a)(2)(iv) |  |  | 73.71(b) |  |  | POWER LEVEL (10)<br>0 1 0 1 0 |  |  | 20.407(a)(1)(v)(i) |  |  | 50.36(e)(1) |  |  | <input type="checkbox"/> 50.73(a)(2)(v) |  |  | 73.71(c) |  |  |  |  |  | 20.406(a)(1)(ii) |  |  | 50.36(e)(2) |  |  | <input type="checkbox"/> 50.73(a)(2)(vii) |  |  | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |  |  |  |  |  | 20.406(a)(1)(iii) |  |  | 50.73(a)(2)(i) |  |  | <input type="checkbox"/> 50.73(a)(2)(viii)(A) |  |  |  |  |  | 20.406(a)(1)(iv) |  |  | 50.73(a)(2)(ii) |  |  | <input type="checkbox"/> 50.73(a)(2)(viii)(B) |  |  |  |  |  | 20.406(a)(1)(v) |  |  | 50.73(a)(2)(iii) |  |  | <input type="checkbox"/> 50.73(a)(2)(ix) |  |  |
| THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)   |     |      |                    |                   |                 |                  |     |      |   |  |                  |   |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
| OPERATING MODE (9)<br>N   |     |      | 20.41(z)(b)        |                   |                 | 20.406(c)        |     |      | <input checked="" type="checkbox"/> 50.73(a)(2)(iv) |  |                  | 73.71(b)  |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
| POWER LEVEL (10)<br>0 1 0 1 0   |     |      | 20.407(a)(1)(v)(i) |                   |                 | 50.36(e)(1)      |     |      | <input type="checkbox"/> 50.73(a)(2)(v)             |  |                  | 73.71(c)  |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
|   |     |      | 20.406(a)(1)(ii)   |                   |                 | 50.36(e)(2)      |     |      | <input type="checkbox"/> 50.73(a)(2)(vii)           |  |                  | OTHER (Specify in Abstract below and in Text, NRC Form 366A)  |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
|   |     |      | 20.406(a)(1)(iii)  |                   |                 | 50.73(a)(2)(i)   |     |      | <input type="checkbox"/> 50.73(a)(2)(viii)(A)       |  |                  |   |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
|   |     |      | 20.406(a)(1)(iv)   |                   |                 | 50.73(a)(2)(ii)  |     |      | <input type="checkbox"/> 50.73(a)(2)(viii)(B)       |  |                  |   |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |
|   |     |      | 20.406(a)(1)(v)    |                   |                 | 50.73(a)(2)(iii) |     |      | <input type="checkbox"/> 50.73(a)(2)(ix)            |  |                  |   |  |  |  |  |  |  |  |  |  |  |  |                         |  |  |             |  |  |           |  |  |   |  |  |          |  |  |                               |  |  |                    |  |  |             |  |  |   |  |  |          |  |  |  |  |  |                  |  |  |             |  |  |   |  |  |  |  |  |  |  |  |                   |  |  |                |  |  |   |  |  |  |  |  |                  |  |  |                 |  |  |   |  |  |  |  |  |                 |  |  |                  |  |  |  |  |  |

LICENSEE CONTACT FOR THIS LER (12)

|  |   |
|--|---|
| NAME<br>Robert G. Randall, Supervisor, Technical Support | TELEPHONE NUMBER<br>AREA CODE: 3 1 5<br>3 4 9 - 2 4 4 5 |
|--|---|

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

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
|       |        |           |              |                     |       |        |           |              |                     |
|       |        |           |              |                     |       |        |           |              |                     |
|       |        |           |              |                     |       |        |           |              |                     |

SUPPLEMENTAL REPORT EXPECTED (14)

|  |  |
|--|--|
| <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)<br><input checked="" type="checkbox"/> NO | EXPECTED SUBMISSION DATE (15)<br>MONTH:    DAY:    YEAR: |
|--|--|

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

ABSTRACT

On April 22, 1986, with Nine Mile Point Unit I in a refueling outage, the Reactor Building Emergency Ventilation System was initiated due to an undervoltage condition on the Instrument and Control Bus 130. The Refuel Floor High Radiation monitor on this bus tripped off due to the undervoltage. With the switch for this monitor in the "refuel" position, coupled with the loss of power to I&C Bus 130, Reactor Building Emergency Ventilation initiated as designed.

The undervoltage condition was a result of the loss of the backfeed through the main transformer from the plant 345Kv switchyard. This loss of power was seen by powerboard 12 protective relaying as a loss of normal feed. However, the fast transfer to offsite power of powerboard 12 did not operate and bus voltage decayed. Powerboard 12 feeds Instrument and Control Bus 130 through Powerboard 13B. No other plant safety systems were affected.

The corrective actions taken have included the initiation of work requests and an engineering evaluation to investigate the backfeed trip and fast transfer problem. Initial tests have been performed but the results are inconclusive. Additional work is underway and, upon discovery of the causes, appropriate corrective action will be taken.

IE22  
1/1

8605280417 860521  
PDR ADOCK 05000220  
S PDR

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

|   |  |                |                   |                 |          |    |     |
|---|--|----------------|-------------------|-----------------|----------|----|-----|
| FACILITY NAME (1)<br><br>Nine Mile Point Unit I | DOCKET NUMBER (2)<br><br>0 5 0 0 0 2 2 0 | LER NUMBER (6) |                   |                 | PAGE (3) |    |     |
|   |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |     |
|   |  | 8 6            | - 0 0 8           | - 0 0           | 0 2      | OF | 0 3 |

TEXT (If more space is required, use additional NRC Form 366A's) (17)

TEXT

On April 22, 1986, with the mode switch in shutdown and Nine Mile Point Unit I in a refueling outage, the Reactor Building Emergency Ventilation System was initiated due to loss of power on the Instrument and Control Bus 130. This loss of power tripped the Refuel Floor High Radiation monitor and with the keylock switch for this monitor in the "refuel" position Reactor Building Emergency Ventilation initiated as designed.

The undervoltage condition was a direct result of the loss of the backfeed through the main transformer from the plant 345 Kv switchyard. This loss of the backfeed was initiated by normal outage maintenance on plant protective relaying. With the plant in the backfeed mode through the 345 Kv switchyard, the generator links are removed and the generator grounded. The backfeed mode is not seen as a reverse power condition by the reverse power relay as the generator links are removed from the circuit. Thus the conditions were not met for both current magnitude and phase angle to trip the switchyard in a reverse power condition. When the 21 (distance relay) device was removed from the circuit for testing, the impedance characteristics of the protective relaying circuit were changed. This change was enough to allow circuit induced currents to trip the reverse power relay. This relay tripped the backfeed.

The tripping of the backfeed was seen by powerboard 12 protective relaying as a loss of normal feed. However, the fast transfer to reserve power did not function and bus voltage decayed. Powerboard 12 feeds Powerboard 13B which in turn feeds Instrument and Control Bus 130. The Refuel Floor High Radiation Monitor, which is fed through this bus, tripped off due to loss of power. Because the keylock switch for this monitor was in "refuel" not "bypass" because of the refueling outage, this loss of power resulted in a Reactor Building Emergency Ventilation initiation. Although Instrument and Control Bus 130 may be fed through other power sources, the transfer to these sources must be by operator action. In this situation, power was manually restored to powerboard 12 by the operators and Instrument and Control Bus 130 was reenergized.

ASSESSMENT OF POTENTIAL SAFETY CONSEQUENCES

There were no potential safety consequences associated with this incident since the Engineered Safety Features (ESF) functioned as designed. The Reactor Building Emergency Ventilation System received an initiation signal and actuated. No other ESF Systems were affected by this incident. The tripping of the backfeed and failure of Powerboard 12 to fast transfer posed an operational concern during the refueling outage but not a safety concern, because Powerboard 12 is not safety related. During power operations, the failure to fast transfer would only pose an operational concern since Powerboard 11 provides power to redundant components. Since the ESF systems required for safe shutdown are powered from safety related Powerboards 102 and 103, no potential safety consequences result from this event.

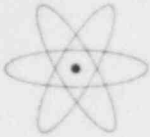
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

|   |  |                |                   |                 |          |    |     |
|---|--|----------------|-------------------|-----------------|----------|----|-----|
| FACILITY NAME (1)<br><br>Nine Mile Point Unit I | DOCKET NUMBER (2)<br><br>0 5 0 0 0 2 2 0 | LER NUMBER (6) |                   |                 | PAGE (3) |    |     |
|   |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |     |
|   |  | 8 6            | 0 0 8             | 0 0             | 0 3      | OF | 0 3 |

TEXT (If more space is required, use additional NRC Form 366A's) (17)

CORRECTIVE ACTION

Work requests were initiated to investigate the cause for the backfeed trip upon removing the 21 (distance relay) device from the circuit and to investigate the reason for powerboard 12 failing to transfer to offsite power. Engineering investigated the testing conditions, circuit load and impedance characteristics, and setpoints of the reverse power relay to determine methodology to prevent a recurrence of the backfeed trip. Presently, the current magnitude trip setpoint of the reverse power relay has been raised from 10 milliamps to 15 milliamps. In addition for future backfeed conditions, the plant protective relaying in the circuit with the reverse power relay will be disabled. With respect to the failure to transfer, simulation of the conditions that initiated the backfeed trip did not produce a recurrence of the failure of powerboard 12 to transfer to reserve power. Chart recorders were in place at the time of this testing. The test results are being sent to engineering for analysis. Also, these chart recorders will be reinstalled to determine the cause of the failure to transfer should this situation happen again. Depending on the results of these investigations, appropriate corrective actions will be taken.



NIAGARA MOHAWK POWER CORPORATION

NIAGARA  MOHAWK

300 ERIE BOULEVARD WEST  
SYRACUSE, N. Y. 13202

THOMAS E. LEMPGES  
VICE PRESIDENT—NUCLEAR GENERATION

May 21, 1986

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

RE: Docket No. 50-220  
LER 86-08

Gentlemen:

In accordance with 10 CFR 50.73, we hereby submit the following Licensee Event Report:

LER 86-08      Which is being submitted in accordance with 10 CFR 50.73 (a)(2)(iv), "Any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature (ESF), including the Reactor Protection System (RPS). However, actuation of an ESF, including the RPS, that resulted from and was part of the preplanned sequence during testing or reactor operation need not be reported".

Telephone notification per 10 CFR 50.72 was made at 0940 hours on April 22, 1986.

This report was completed in the format designated in NUREG-1022 dated September 1983.

Very truly yours,

Thomas E. Lempges  
Vice President  
Nuclear Generation

TEL/tg  
Attachments  
cc: Dr. TE Murley  
Regional Administrator

IE22  
/