

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)  
McGuire Nuclear Station - Unit 2DOCKET NUMBER (2)  
0 5 0 0 0 3 7 0 1 OF 12TITLE (4)  
Unplanned Automatic Start of Diesel Generator

| 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              | 2   | 2    | 8              | 8                 | 5               | 8               | 5   | 0    | 0                             | 5 | 0                | 5 | 0 | 0 | 0 |  |  |
| 0              | 2   | 2    | 8              | 8                 | 5               | 8               | 5   | 0    | 0                             | 5 | 0                | 0 | 0 | 0 | 0 |  |  |

| OPERATING MODE (9) |   | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) |                  |   |                      |  |  |  |  |  |  |
|--------------------|---|--|------------------|---|----------------------|--|--|--|--|--|--|
| POWER LEVEL (10)   | 6 | 20.402(b)  | 20.405(c)        | X | 50.73(a)(2)(iv)      | 73.71(b)   |  |  |  |  |  |
|                    |   | 20.405(a)(1)(i)  | 50.38(c)(1)      |   | 50.73(a)(2)(v)       | 73.71(c)   |  |  |  |  |  |
|                    |   | 20.405(a)(1)(ii)   | 50.38(c)(2)      |   | 50.73(a)(2)(vii)     | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |  |  |  |  |  |
|                    |   | 20.405(a)(1)(iii)  | 50.73(a)(2)(i)   |   | 50.73(a)(2)(viii)(A) |  |  |  |  |  |  |
|                    |   | 20.405(a)(1)(iv)   | 50.73(a)(2)(ii)  |   | 50.73(a)(2)(vii)(B)  |  |  |  |  |  |  |
|                    |   | 20.405(a)(1)(v)  | 50.73(a)(2)(iii) |   | 50.73(a)(2)(x)       |  |  |  |  |  |  |

LICENSEE CONTACT FOR THIS LER (12)  
NAME  
Scott Gewehr - LicensingTELEPHONE NUMBER  
AREA CODE  
7 0 4 3 7 3 - 7 5 8 1

| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) |        |           |              |                    |       |        |           |              |                    |
|--|--------|-----------|--------------|--------------------|-------|--------|-----------|--------------|--------------------|
| CAUSE  | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDs | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDs |
|  |        |           |              |                    |       |        |           |              |                    |
|  |        |           |              |                    |       |        |           |              |                    |
|  |        |           |              |                    |       |        |           |              |                    |

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

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

Diesel Generator 2B experienced an invalid automatic start on February 12, 1985, when an electrical storm apparently caused a voltage dip on the Train "B" essential switchgear. Unit 2 was shutdown for refueling at the time. Corrective Actions will consist of installation of a modification to the undervoltage relays to provide a time delay to aid in screening out spurious start signals.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

|   |  |                |                   |                 |          |      |
|---|--|----------------|-------------------|-----------------|----------|------|
| FACILITY NAME (1)<br><br>McGuire Nuclear Station - Unit 2 | DOCKET NUMBER (2)<br><br>0 5 0 0 0 3 7 0 | LER NUMBER (6) |                   |                 | PAGE (3) |      |
|   |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |      |
|   |  | 8 5            | - 0 1 0 5         | - 0 0           | 0 2      | OF 2 |

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

INTRODUCTION: Diesel Generator (D/G) 2B experienced an invalid automatic start on February 12, 1985 at 0130. The D/G started due to a voltage dip on the 4160 volt "B" train essential switchgear (2ETB) generated by a momentary power distribution system disturbance.

Unit 2 was in Mode 6, cold shutdown in preparation for refueling at the time of the occurrence. Diesel Generator 2A was out of commission for repairs. This incident is classified as an Unusual Service Condition, due to a power distribution system disturbance possibly caused by an electrical storm in the service area. Invalid automatic starts have occurred at least five times since early 1984 due to electrical storms in the service area.

EVALUATION: The D/Gs ensure that sufficient power will be available to supply the safety related equipment for safe shutdown and for the mitigation and control of accident conditions within the facility. Therefore, in the event of a loss of offsite power or a blackout, the D/Gs will automatically start and subsequently load.

The blackout signal was generated by an undervoltage condition due to line voltage fluctuation on a 525 KV transmission line.

The D/G started when the load sequencer received signals from two out of three 4160 volt instantaneous, undervoltage relays (27 X, Y, Z). The nominal setpoint on the undervoltage relays is 3500 volts.

The load sequencer has an eight second time delay after starting the D/G before beginning a load shed and subsequent reloading of the D/G. The time delay confirms the validity of the blackout signal. The system disturbance cleared after 2.7 cycles (.045 seconds); clearing the blackout signal; therefore, the D/G did not load.

The D/G was shutdown after about 7 minutes.

CORRECTIVE ACTION: NSM's for installing a time delay on the UV relays to aid in the prevention of spurious starts are expected to be implemented during the second Unit 2 refueling outage and the third Unit 1 refueling outage.

SAFETY ANALYSIS: D/G 2B performed as designed during this incident and would have subsequently loaded had this been a valid blackout. The health and safety of the public were not affected by this incident.

**DUKE POWER COMPANY**

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CHARLOTTE, N.C. 28242

HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

TELEPHONE  
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March 14, 1985

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: McGuire Nuclear Station, Unit 2  
Docket No. 50-369  
LER 370/85-05

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 370/85-05 concerning an Unplanned Automatic Start of a Diesel Generator (ESF Actuation), which is submitted in accordance with §50.73 (a) (2)(iv). This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

*H.B. Tucker*  
Hal B. Tucker

SAG/mjf

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator  
U. S. Nuclear Regulatory Commission  
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