NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| Joseph M. Farley - Unit 2 | 0 5 0 0 0 3 6 4 | 1 OF 0 2 |

TITLE (4)

Diesel Generator Output Breaker Did Not Open After Diesel Tripped

| 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 5 0 0 0 |
| 0 5 | 1 9 | 8 4 | 8 4 | — 0 0 6 | — 0 0 | 0 6 | 1 8 | 8 4 | | 0 5 0 0 0 |

| OPERATING MODE (9) | 1 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | |
|---|---|---|---|---|---|
| POWER LEVEL (10) | 1 0 0 | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) |
| | | 20.405(a)(1)(i) | 50.36(c)(1) | 50.73(a)(2)(v) | 73.71(c) |
| | | 20.405(a)(1)(ii) | 50.36(c)(2) | 50.73(a)(2)(vii) | X 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) | Voluntary Report |
| | | 20.405(a)(1)(iv) | 50.73(a)(2)(ii) | 50.73(a)(2)(viii)(B) | |
| | | 20.405(a)(1)(v) | 50.73(a)(2)(iii) | 50.73(a)(2)(x) | |

LICENSEE CONTACT FOR THIS LER (12)

| NAME | TELEPHONE NUMBER |
|---|---|
| | AREA CODE |
| W. G. Hairston, III | 2 0 5 8 9 9 — 5 1 5 6 |

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

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

SUPPLEMENTAL REPORT EXPECTED (14)

| | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|---|---|---|---|---|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | X NO | | | | |


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

On 5-19-84, a maintenance run of Diesel Generator 2B was performed. This run was performed following scheduled maintenance during the preceding six days and prior to returning the diesel to operable status. At 2043, the diesel tripped on High Jacket Water Temperature (non-essential engine protection), however the generator output breaker did not open automatically. The plant operator observed this and opened the breaker remotely. A review of the circuit design revealed that under certain circumstances the generator output breaker would not have opened if the diesel tripped following a non-emergency test start. A design change has been implemented to correct this condition. Emergency starting and operation would not have been affected. Health/safety of the public was not affected.




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| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) |
|---|---|---|---|---|---|
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | |
| Joseph M. Farley - Unit 2 | 0 5 0 0 0 3 6 4 | 8 4 | — 0 0 6 | — 0 0 | 0 2 OF 0 2 |

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

On 5-19-84, during steady state operation with the unit in Mode 1 at 100% power, a maintenance run of Diesel Generator 2B was being performed. The diesel had been removed from service for scheduled maintenance during the preceeding six days and had not yet been restored to operable status. At 2043, the diesel tripped on High Jacket Water Temperature (non-essential engine protection); however, the generator output breaker did not open automatically. The plant operator observed that control room instrumentation indicated a reverse power condition and opened the generator output breaker remotely. The reverse power condition existed for only a few seconds.

Following a design review, it was determined that, with the existing circuit design, the generator output breaker may or may not have opened if the diesel tripped following a non-emergency test start. Since a certain amount of variance exists in relay actuation times, the trip signal would not have remained in long enough to open the breaker in all cases. Therefore, the generator output breaker might have opened at some times and not at others. This circuitry had been tested during the initial startup testing program and found to operate properly.

Investigation revealed that the remaining four diesel generators incorporated a different circuit design not subject to this condition. The circuit for Diesel Generator 2B was modified to be consistent with the circuits for the other diesel generators. The modified circuitry was tested satisfactorily.

The affected portion of the circuitry is used only during non-emergency test starts and would not have been used in the event that the diesel had started in response to an emergency condition. Therefore, emergency operation of the diesel generator was not affected.

Work on the Amot thermostatic valve in the jacket water system had been included in the maintenance performed on the diesel generator. Following the high temperature occurrence, further maintenance on the Amot valve was performed and the system tested satisfactorily. Following satisfactory performance of FNP-2-STP-80.1 (Diesel Generator 2B Operability Test), Diesel Generator 2B was declared operable at 0358 on 5-24-84.

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**R. P. McDonald**
Senior Vice President-
Nuclear Generation
Flintridge Building

Alabama Power
the southern electric system

June 18, 1984

Docket No. 364

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

Dear Sir:

Joseph M. Farley Nuclear Plant, Unit 2, Licensee Event Report No. LER 84-006-00 is being voluntarily submitted. This report was prepared using a draft version of IEEE Std. 805-1984 since a final version has not been published.

If you have any questions, please advise.

Yours very truly,

R. P. McDonald

RPM/DSM:sam

Enclosure

xc: IE, Region II

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