REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8710220113 DOC. DATE: 87/10/16 NOTARIZED: NO DOCKET #
FACIL: 50-389 St. Lucie Plant, Unit 2, Florida Power & Light Co. 05000389
AUTH. NAME AUTHOR AFFILIATION
MENDOZA, V. N. Florida Power & Light Co.
WOODY, C. O. Florida Power & Light Co.
RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-006-00: on 870917, test of 2A & 2B emergency diesel generator automatic load sequence relays incomplete. Caused by personnel error. Personnel immediately performed required surveillance test in accordance w/procedure. W/871016 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| ST. LUCIE UNIT 2 | 0 5 0 0 0 3 8 9 | 1 OF 0 3 |

TITLE (4) MISSED SURVEILLANCE ON THE 2A AND 2B EMERGENCY DIESEL GENERATOR AUTOMATIC LOAD SEQUENCE RELAYS DUE TO A COGNITIVE PERSONNEL ERROR.

| 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) |
| | | | | | | | | | N/A | 0 5 0 0 0 |
| 0 9 | 1 7 | 8 7 | 8 7 | — 0 0 6 | — 0 0 | 1 0 | 1 6 | 8 7 | | 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) | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| | | 20.405(a)(1)(iii) | X 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)(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 |
|---|---|
| V. N. Mendoza, Shift Technical Advisor | AREA CODE 3 0 5 4 6 5 - 3 5 5 0 |

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 |
|---|---|---|---|---|---|---|---|---|---|
| NA | NA | NA | NA | NA | | | | | |
| | | | | | | | | | |

| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|---|---|---|---|---|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | X NO | | N A | | |

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


At 1900 on September 17, 1987, it was determined that the 12 month test of the 2A and 2B Emergency Diesel Generator (EDG) automatic load sequence relays was incomplete. A review of the surveillance procedure, performed on May 4, 1987, indicated that only the components on the 4160 volt 2A3 and 2B3 buses were tested and that the test did not include the components on the 4160 volt 2AB bus and the 480 volt load centers (LC).

The root cause of the event was a cognitive personnel error by utility personnel implementing the maintenance surveillance procedure and the quality control personnel reviewing the plant work order and the maintenance surveillance procedure for completeness and compliance to the surveillance requirements.

For corrective actions, the electrical maintenance personnel immediately performed the required surveillance test in accordance with the approved procedure. Plant Management has re-emphasized the importance of adequate review of plant work orders and surveillance procedures. In addition, the surveillance procedure was revised for clarity.

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) |
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| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | |
| ST. LUCIE UNIT 2 | 0 5 0 0 0 3 8 9 | 8 7 | — 0 0 6 | — 0 0 | 0 2 OF 0 3 |

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

## DESCRIPTION OF THE EVENT

At approximately 1730 on September 17, 1987, operations personnel were notified that an FPL Quality Assurance audit had determined the twelve month test of the 2A and 2B emergency diesel generator (EDG) (EIIS:EK) automatic load sequence relays performed on May 4, 1987 was incomplete. This procedure required that all components on the the 4160 V buses and the 480 V load centers (LC) be tested for proper load sequence relay timing. During the review, it was discovered that only the components on the 4160 volt 2A3 and 2B3 buses were tested. At 1900 on September 17, 1987, efforts were started to perform the required surveillance tests to comply with the Technical Specification requirements. By 0600 on September 18, 1987, all the components on the 2A EDG (Train "A") were satisfactorily tested and by 1453 on September 18, 1987, all of the 2A and 2B EDG components were satisfactorily tested. All the relays tested were found to be within the tolerance requirements of the Technical Specifications. St. Lucie Unit #2 remained at Mode 1, 100% power, throughout this time period.

## CAUSE OF THE EVENT

The root cause of the event was a cognitive personnel error by utility maintenance and quality control personnel responsible for reviewing the plant work order (PWO) to ensure complete implementation and compliance with the requirements of the surveillance procedures. The copy of the procedure used by the journeyman had handwritten directions on the steps of the procedure indicating where to start and where to stop. These instructions only covered the 4160 volt 2A3 and 2B3 components. Consequently, 4160 volt 2AB bus and the 480 V LC portions of the procedure were never performed. The review of the PWO did not reveal this omission.

## ANALYSIS OF THE EVENT

Technical Specifications 4.8.1.1.2.d requires that while operating in Modes 1,2,3,and 4 each diesel generator shall be demonstrated operable by verifying that at least once per 12 months the automatic load sequence timers are operable with the interval between each load block within plus/minus one second of its design interval. Since the St. Lucie Unit #2 was operating in Mode 1 when the event was discovered, this report is being submitted under 10 CFR 50.73(a)(2)(i)(B), any operation or condition prohibited by technical specifications as defined in generic letter 87-09. The last surveillance for the EDG 12-month test of the automatic load sequence relays was satisfactorily performed in May 1986. This surveillance procedure was completed on September 18, 1987, approximately 18.5 days past the maximum allowable extension of 25% of the testing interval after the surveillance was due and approximately 22 hours after the discovery of the condition. All components tested satisfactorily, thus the health and safety of the general public were not affected by this event.

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) |
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| ST. LUCIE UNIT 2 | 0 5 0 0 0 3 8 9 | 8 7 | — 0 0 6 | — 0 0 | 0 3 OF 0 3 |

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

## CORRECTIVE ACTIONS

1. After Operations personnel were notified of the missed surveillance condition, the required surveillance was immediately performed and was deemed satisfactory.

2. Plant Management has re-emphasized to plant personnel the importance of completing all technical specification surveillances in a timely manner as required.

3. The plant Training Department will evaluate this item to determine appropriate training requirements and methods.

4. The personnel responsible for preparation and review of the above PWO have been counselled on the importance of attention to detail in ensuring Technical Specification surveillance requirements are met.

5. The surveillance procedure was revised for clarity.

## ADDITIONAL INFORMATION

Failed component information:
No component or system failures occured during this event.

Previous similar event:
The most recent similar event on Unit #2 was a missed surveillance submitted under LER #389-86-014.

P. O. BOX 14000, JUNO BEACH, FL 33408-0420

FPL

USNRC-DS
1987 OCT 22 A 10:05

OCTOBER 16, 1987

L-87-417
10 CFR 50.73

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

Gentlemen:

Re: St. Lucie Unit 2
Docket No. 50-389
Reportable Event: 87-06
Date of Event: September 17, 1987
Missed Surveillance on Emergency
Diesel Generator Auto Load Sequence Relays

The attached Licensee Event Report is being submitted pursuant to the requirments of 10 CFR 50.73.a. to provide notification on the subject event.

Very truly yours,

for C. O. Woody
Group Vice President
Nuclear Energy

COW/GRM/gp

Attachment

cc: J. Nelson Grace, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant

IE22
1/1

GRM1/034/1