

PRIORITY 1

(ACCELERATED RIDS PROCESSING)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9506290125 DOC. DATE: 95/06/22 NOTARIZED: NO DOCKET #
 FACIL: 50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co. 05000335 P
 AUTH. NAME AUTHOR AFFILIATION
 SCISCENTE, R.C. Florida Power & Light Co. R
 SAGER, D.A. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 95-002-00: on 950517, 1B EDG failed seventh surveillance test due to governor failure. Cause due to misinterpretation of TS requirements re surveillance. EDG surveillance procedure revised. W/950622 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: S
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

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Florida Power & Light Company, P.O. Box 128, Fort Pierce, FL 34954-0128

June 22, 1995

L-95-185
10 CFR 50.73

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

Re: St. Lucie Unit 1
Docket No. 50-335
Reportable Event: 95-002
Date of Event: May 26, 1995
Missed Emergency Diesel Generator Surveillance
Due to Procedural Deficiency

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

Very truly yours,

A handwritten signature in cursive script that reads "D. A. Sager".

D. A. Sager
Vice President
St. Lucie Plant

DAS/EJB

Attachment

cc: Stewart D. Ebnetter, Regional Administrator, USNRC Region II
Senior Resident Inspector, USNRC, St. Lucie Plant

270076

Handwritten initials or a signature in the bottom right corner, possibly reading "JE" or similar.

LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

| | | |
|--|--------------------------------------|---------------------------|
| FACILITY NAME (1) St. Lucie Unit 1 | DOCKET NUMBER (2) 05000335 | PAGE (3) 1 OF 4 |
|--|--------------------------------------|---------------------------|

TITLE (4) **Missed Emergency Diesel Generator Surveillance due to Procedural Deficiency.**

| 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 NAME | DOCKET NUMBER |
| 5 | 26 | 95 | 95 | --002-- | 0 | 6 | 22 | 95 | FACILITY NAME | DOCKET NUMBER |

| | | | | | | | | | | |
|--------------------------------|---|--|---|--|--|--|--|--|--|--|
| OPERATING MODE (9) 1 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11) | | | | | | | | | |
| POWER LEVEL (10) 100 | <input type="checkbox"/> 20.402(b) | <input type="checkbox"/> 20.405(c) | <input type="checkbox"/> 50.73(a)(2)(iv) | <input type="checkbox"/> 73.71(b) | | | | | | |
| | <input type="checkbox"/> 20.405(a)(1)(i) | <input type="checkbox"/> 50.36(c)(1) | <input type="checkbox"/> 50.73(a)(2)(v) | <input type="checkbox"/> 73.71(c) | | | | | | |
| | <input type="checkbox"/> 20.405(a)(1)(ii) | <input type="checkbox"/> 50.36(c)(2) | <input type="checkbox"/> 50.73(a)(2)(vii) | <input checked="" type="checkbox"/> OTHER | | | | | | |
| | <input type="checkbox"/> 20.405(a)(1)(iii) | <input checked="" type="checkbox"/> 50.73(a)(2)(i) | <input type="checkbox"/> 50.73(a)(2)(viii)(A) | (Specify in Abstract below and in Text, NRC Form 366A) | | | | | | |
| | <input type="checkbox"/> 20.405(a)(1)(iv) | <input type="checkbox"/> 50.73(a)(2)(ii) | <input type="checkbox"/> 50.73(a)(2)(viii)(B) | | | | | | | |
| | <input type="checkbox"/> 20.405(a)(1)(v) | <input type="checkbox"/> 50.73(a)(2)(iii) | <input type="checkbox"/> 50.73(a)(2)(x) | | | | | | | |

LICENSEE CONTACT FOR THIS LER (12)

| | |
|--|---|
| NAME Richard C. Sciscente, Shift Technical Advisor | TELEPHONE NUMBER (Include Area Code) (407) 465-3550 x3580 |
|--|---|

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 |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
| A | EK | DG | EMD | Y | | | | | |

| | | | | | | | | |
|---|-------------------------------------|----|--|-------------------------------|--|-------|-----|------|
| SUPPLEMENTAL REPORT EXPECTED (14) | | | | EXPECTED SUBMISSION DATE (15) | | MONTH | DAY | YEAR |
| YES (If yes, complete EXPECTED SUBMISSION DATE). | <input checked="" type="checkbox"/> | NO | | | | | | |

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On Oct 28, 1994 the 1B Emergency Diesel Generator (EDG) failed its sixth surveillance in the last one hundred valid tests. Technical Specification 3.8.1.1, Table 4.8-1, requires that the 1B EDG be surveilled every seven days until the number of failures in the last one hundred valid tests are less than or equal to five. Starting on Dec 28, 1994, a series of seven day surveillances that should have been performed were missed.

The root cause of this event was a deficiency in procedural guidance which did not require an independent verification of the interpretation for the surveillance requirements of the diesel Technical Specification. The actions for 2 or more failures in the last 20 valid tests were taken, but the additional requirement that weekly testing continue until 5 or less test failures had occurred in the last 100 tests, was not met.

Corrective Actions: 1) The Technical Staff verified that the other EDG's at St Lucie were meeting the requirements of Technical Specifications Table 4.8-1, 2) Continued 1B EDG surveillances every 7 days as required by Technical Specifications, 3) Revised the Diesel Generator reliability procedure to require independent review of EDG valid failures and starts.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | PAGE (3) | |
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| St. Lucie Unit 1 | 05000335 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 2 OF 4 |
| | | 95 | --002-- | 0 | |

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

DESCRIPTION OF THE EVENT

Technical Specification 3/4.8.1.1, Table 4.8-1 mandates increasing the frequency of diesel (EIIS:EK) surveillances to every 7 days if 2 or more failures occur in the last 20 valid tests or if greater than 5 (e.g. 6 or more) failures occur in the last 100 valid tests. A footnote to the table for the 20 test requirement states that this test frequency shall be maintained until 7 consecutive failure free demands have been performed and the number of failures in the last 20 valid demands have been reduced to 1 or less.

On Oct 28, 1994 the 1B Emergency Diesel Generator (EDG) (EIIS:EK) failed its sixth surveillance in the last one hundred valid tests. Details of the failure are contained in special report L-94-294, "Emergency Diesel Generator Failure." The "Supporting Information" section of that report incorrectly states: "Due to the failure, the 1B EDG is required to be surveilled every seven days until seven consecutive failure free tests are achieved per Technical Specification 3.8.1.1, Table 4.8-1." This surveillance recommendation was made to Operations by the Diesel System Engineer. However, Table 4.8-1 also requires that the 1B EDG be surveilled every 7 days until the number of failures in the last 100 valid tests are less than or equal to 5. On Dec 21, 1994, the 7th consecutive failure free test was achieved following the Oct 28 failure. The interval for testing was then increased to once per month. Starting on Dec 28, 1994, a series of 7 day surveillances that should have been performed were missed.

The Diesel System Engineer is responsible for tracking diesel failures and determining what additional testing is required. On May 17, 1995, the 1B diesel failed due to a governor failure, this being the 7th failure in the last 100 valid tests. During discussions between the Technical Department Manager and the Diesel System Engineer, it was discovered that the Technical Specification requirements had been misinterpreted.

The 1B EDG has been surveilled on a weekly basis since the May 17 failure. It will continue on this testing frequency for approximately 14 more weeks to meet the "less than or equal to 5 failures in the last 100 valid test" criteria, or until Technical Specifications no longer require the increased surveillance frequency.

CAUSE OF THE EVENT

The root cause of this event was a deficiency in procedural guidance which did not require an independent verification of the Diesel System Engineer's interpretation of the surveillance requirements for the EDG Technical Specification.

LICENSEE EVENT REPORT (LER)
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

CAUSE OF THE EVENT (continued)

The immediate cause of the event was that a personnel error occurred on the part of a Technical Department Diesel System Engineer who misinterpreted the surveillance requirements of the diesel Technical Specification. The actions for 2 or more failures in the last 20 valid tests were taken, but the additional requirement that weekly testing continue until 5 or less test failures had occurred in the last 100 tests, was not met.

A contributing factor to this event is that a previous activity to review all Technical Specification surveillances for adequate procedural guidance was still in progress. This review is scheduled to be completed by 30 July, 1995.

ANALYSIS OF THE EVENT

This event is reportable under 10 CFR 50.73 (a) (2) (i) (B) as, "any operation or condition prohibited by the plant's Technical Specifications". NUREG 1022, Event Reporting Guidelines 10 CFR 50.72 and 50.73, states that a missed surveillance is reportable when the surveillance interval plus the allowable interval extension plus the LCO action statement time is exceeded. In this case, the surveillance interval was seven days with no allowable extension and the action statement time was 78 hours (i.e. restore to operable status in 72 hours or be in hot standby in the following 6 hours). This time period was exceeded and therefore meets the reportability criteria.

Three of the 7 subject failures for the 1B EDG involved the radiator fan and support frame and were adequately resolved with the implementation of a plant modification. The modification replaced the fan shafts using higher strength material and installed torsional vibration dampeners in the power takeoff shafts to the fan assemblies. Three of the failures of the 1B EDG separately involved 1) the output breaker relay, 2) the voltage regulator, and 3) an overheated wire and have all been adequately resolved with the performance of preventive maintenance procedures that require periodic inspection of the EDG relays, voltage regulator, and wire connections. The corrective actions to be implemented for the failure of the governor will be determined following the inspection and root cause evaluation by MKW Power Systems Inc.

The reliability of the 1B EDG has been increased with the implementation of the above corrective actions. The first five failures took place in the first 30 valid tests. The sixth failure happened after another 46 successful valid tests had been performed. With the exception of the radiator fan shafts and support frame failures, the other failures have not been repeat failures which points to an effective preventive maintenance program.

Therefore, the health and safety of the public were not affected by this event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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| St. Lucie Unit 1 | 05000335 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 4 OF 4 |
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

CORRECTIVE ACTIONS

1. The Technical Staff verified that the other EDG's at St. Lucie are meeting the requirements of Technical Specifications Table 4.8-1.
2. Operations will continue 1B EDG surveillances every 7 days as required by Technical Specifications.
3. The Technical Staff has revised AP 0010022 "Emergency Diesel Generator Reliability Program" to include a requirement for independent review of valid failure data and required surveillance frequency.
4. All plant departments' Technical Specification surveillance scheduling programs will continue to be reviewed to ensure procedural controls and independent reviews of required surveillance completion dates are part of their programs. This review will be complete by 30 July, 1995.
5. Prior to this event, a proposed amendment to Unit 1 and Unit 2 Technical Specifications was made pursuant to NRC Generic Letter 94-01 to eliminate the requirement for increased surveillance frequency testing of the EDGs. Appropriate procedural controls will be implemented to reflect this amendment when it is approved.

ADDITIONAL INFORMATION

Component Failures

Woodward Governor
Model 8240490
Serial Number 1845733

Previous Similar Events

Similar events that resulted in missed Technical Specification scheduled surveillances are:

LER 335-90-002 "Missed Surveillance on 125 Volt DC Batteries Result in Technical Specification Violation Due to Personnel Error."

LER 389-91-005 "Missed Surveillance for Safety Injection Tank Water Level and Pressure Channel Functional Test Due to Personnel Error."

LER 389-95-003 "Missed Technical Specification Scheduled Surveillance due to Procedural Deficiency."