

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8805160092      DOC. DATE: 88/05/09      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.  
 CONWAY, W.F.      Florida Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 88-004-00: on 880407, missed surveillance of specific  
 sample analysis due to equipment failure & personnel error.

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

**NOTES:**

|           | RECIPIENT<br>ID CODE/NAME | COPIES<br>LTR ENCL | RECIPIENT<br>ID CODE/NAME | COPIES<br>LTR ENCL |   |
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|           | TOURIGNY, E               | 1 1                |                           |                    | A |
| INTERNAL: | ACRS MICHELSON            | 1 1                | ACRS MOELLER              | 2 2                | D |
|           | AEOD/DOA                  | 1 1                | AEOD/DSP/NAS              | 1 1                | D |
|           | AEOD/DSP/ROAB             | 2 2                | AEOD/DSP/TPAB             | 1 1                | S |
|           | ARM/DCTS/DAB              | 1 1                | DEDRO                     | 1 1                |   |
|           | NRR/DEST/ADS 7E           | 1 0                | NRR/DEST/CEB 8H           | 1 1                |   |
|           | NRR/DEST/ESB 8D           | 1 1                | NRR/DEST/ICSB 7           | 1 1                |   |
|           | NRR/DEST/MEB 9H           | 1 1                | NRR/DEST/MTB 9H           | 1 1                |   |
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|           | NRR/DLPQ/QAB 10           | 1 1                | NRR/DOEA/EAB 11           | 1 1                |   |
|           | NRR/DREP/RAB 10           | 1 1                | NRR/DREP/RPB 10           | 2 2                |   |
|           | NRR/DRIS/SIB 9A           | 1 1                | NRR/PMAS/ILRB12           | 1 1                |   |
|           | NUDOCS-ABSTRACT           | 1 1                | <del>REG FILE</del> 02    | 1 1                |   |
|           | RES TELFORD, J            | 1 1                | RES/DE/EIB                | 1 1                |   |
|           | RES/DRPS DEPY             | 1 1                | RGN2 FILE 01              | 1 1                |   |
| EXTERNAL: | EG&G WILLIAMS, S          | 4 4                | FORD BLDG HOY, A          | 1 1                | R |
|           | H ST LOBBY WARD           | 1 1                | LPDR                      | 1 1                | I |
|           | NRC PDR                   | 1 1                | NSIC HARRIS, J            | 1 1                | D |
|           | NSIC MAYS, G              | 1 1                |                           |                    | S |

TOTAL NUMBER OF COPIES REQUIRED: LTR 46 ENCL 45

LICENSEE EVENT REPORT (LER)

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

TITLE (4) **MISSED SURVEILLANCE OF SPECIFIC ACTIVITY SAMPLE ANALYSIS DUE TO EQUIPMENT FAILURE AND 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                    |  |  |
| 0              | 4   | 0 7 8 8 | 8 8            | 0 0 4             | 0 0             | 0 5             | 0 9 | 8 8  | N/A                               |  |  |
|                |     |         |                |                   |                 |                 |     |      | DOCKET NUMBER(S)<br>0 5   0 0   0 |  |  |

|                                  |  |  |                  |  |  |                 |                     |  |  |  |  |  |
|----------------------------------|--|--|------------------|--|--|-----------------|---------------------|--|--|--|--|--|
| OPERATING MODE (9)<br><b>1</b>   | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) |  |                  |  |  |                 |                     |  |  |  |  |  |
| POWER LEVEL (10)<br><b>1 0 0</b> | 20.402(b)  |  |                  | 20.406(c)  |  |                 | 50.73(a)(2)(iv)     |  |  | 73.71(b)   |  |  |
|                                  | 20.406(a)(1)(ii)   |  |                  | 50.38(e)(1)  |  |                 | 50.73(a)(2)(v)      |  |  | 73.71(c)   |  |  |
|                                  | 20.406(a)(1)(iii)  |  |                  | 50.38(e)(2)  |  |                 | 50.73(a)(2)(vi)     |  |  | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |  |  |
|                                  | 20.406(a)(1)(iv)   |  |                  | <input checked="" type="checkbox"/> 50.73(a)(2)(i) |  |                 | 50.73(a)(2)(vii)(A) |  |  |  |  |  |
|                                  | 20.406(a)(1)(v)  |  |                  | 50.73(a)(2)(ii)                                    |  |                 | 50.73(a)(2)(vii)(B) |  |  |  |  |  |
| 20.406(a)(1)(vi)                 |  |  | 50.73(a)(2)(iii) |  |  | 50.73(a)(2)(ix) |                     |  |  |  |  |  |

LICENSEE CONTACT FOR THIS LER (12)

|   |  |
|---|--|
| NAME<br><b>VICTOR N. MENDOZA, SHIFT TECHNICAL ADVISOR</b> | TELEPHONE NUMBER                                       |
|   | AREA CODE: <b>4 0 7</b> NUMBER: <b>4 6 8 - 4 1 5 5</b> |

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

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPROS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPROS |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
| N/A   | N/A    | N/A       | N/A          | N/A                 |       |        |           |              |                     |
|       |        |           |              |                     |       |        |           |              |                     |

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

On April 7, 1988, St. Lucie Unit 2 was in Mode 1 and at 100% power. During a planned downpower, a thermal power change of 21% in one hour was achieved. Plant's Technical Specifications require that during a power change exceeding 15% in one hour, a sample of the reactor coolant specific activity on Dose Equivalent Iodine I-131 (DEQ I-131) be taken 2 to 6 hours following the power change. A sample was taken at 0841 EDT on April 8, 1988, 8 hours past the time limit.

The root cause was a program error on the thermal power change (QRP) alarm setpoint. The alarm was set at 27.45% instead of 15% thermal power change. The alarm did not actuate when a 21% power change was reached. A contributing factor was a cognitive personnel error by a licensed utility operator for failure to verify the actual power change and his failure to notify Chemistry Department to take and do a sample analysis.

The sample analysis showed the specific activity to be 0.0689 microcurie per gram DEQ I-131, well below the Technical Specification limit of 1 microcurie per gram DEQ I-131. The program error was corrected and the alarm setpoint was tested and verified to actuate at 15% power change.

The health and safety of the public was not endangered during the event.

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PDR ADOCK 05000389  
S DCD

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

|  |  |                |                   |                 |          |    |       |
|--|--|----------------|-------------------|-----------------|----------|----|-------|
| FACILITY NAME (1)<br><br>ST. LUCIE UNIT -2 | DOCKET NUMBER (2)<br><br>0   5   0   0   0   3   8   9 | LER NUMBER (6) |                   |                 | PAGE (3) |    |       |
|  |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |       |
|  |  | 8   8          | —   0   0   4     | —   0   0       | 0   2    | OF | 0   3 |

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

DESCRIPTION OF EVENT:

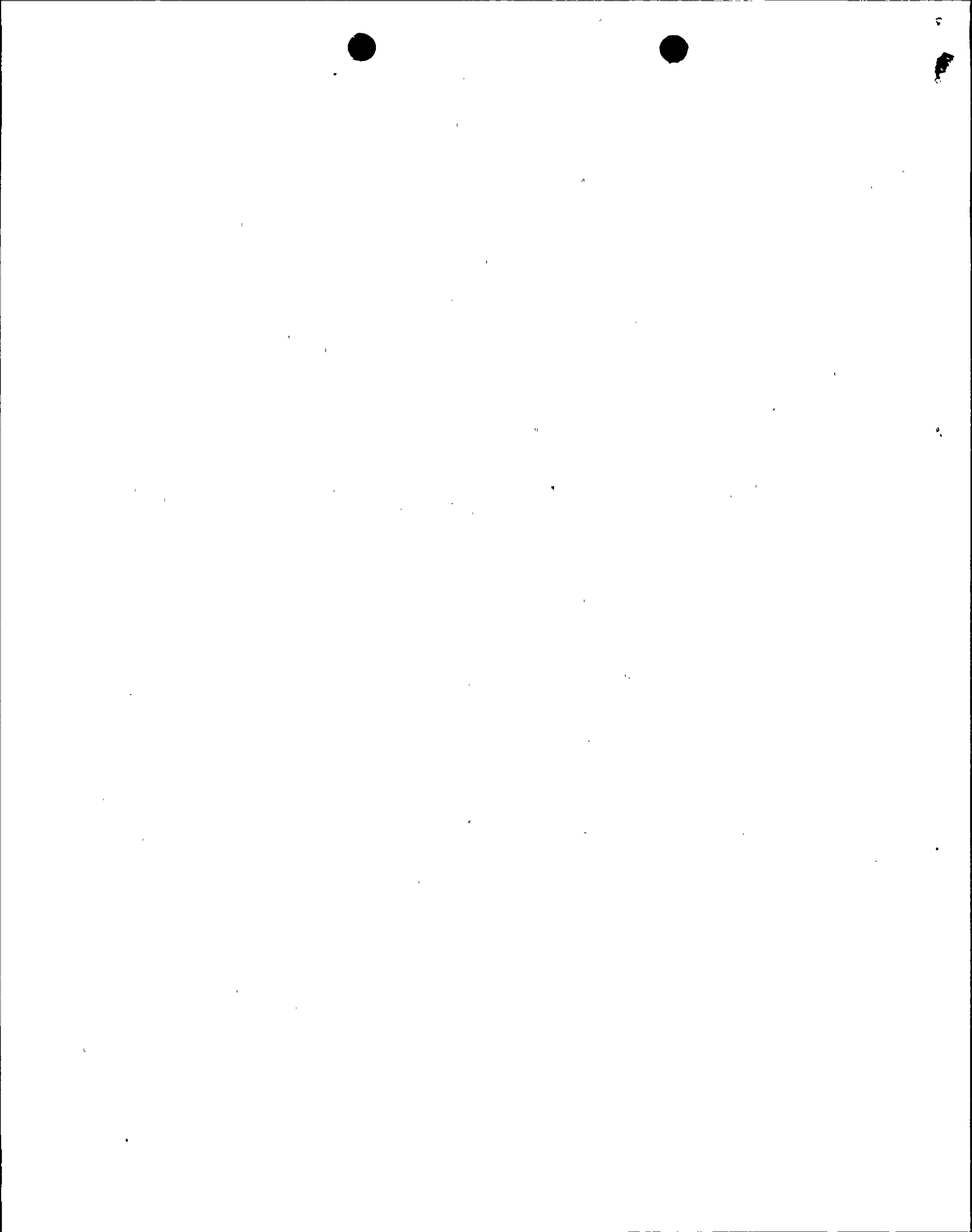
On April 7, 1988, St. Lucie Unit 2 was in Mode 1, 100% Power and at steady state conditions. At approximately 1600 EDT, a fire at the vicinity of the Plant high voltage distribution lines about 5 miles from the Plant had caused one of the line breakers to open and it reclosed immediately. As a precautionary measure, operations management made the decision to reduce power. At 1655 EDT, a controlled downpower was started. At 1822 EDT, the Unit was at 67% power and was maintained at 67% power level until 1912 EDT. As soon as the fire was under control, at 1912 EDT, operations personnel started to bring the Unit slowly back to 100% power and by 2132 EDT, the Unit was back at 100% power. During the one and a half hour downpower maneuver, a thermal power change of approximately 21% in a one-hour period was achieved. Plant's Technical Specifications require that during a thermal power change exceeding 15% in a one hour period, a sample for specific activity on Dose Equivalent Iodine I-131 (DEQ I-131) be obtained within 2 to 6 hours following the thermal power change. A sample was taken at 0841 EDT on April 8, 1988, which was approximately 8 hours beyond the surveillance requirement. The sample analysis of the sample taken at 0841 EDT was 0.0689 microcurie per gram DEQ I-131 which was well below the Technical Specification limit of 1.0 microcurie per gram DEQ I-131.

CAUSE OF THE EVENT:

The root cause of the event was a program error on the Digital Data Processing System (DDPS) maximum differential thermal power change (QRP) alarm setpoint. The QRP alarm was set at 27.45% thermal power change instead of 15% thermal power change. Due to the higher alarm setpoint, the alarm did not actuate when a 21% rate of power change was reached. A contributing factor was a cognitive personnel error on the part of a licensed utility operator for failure to verify the actual rate of thermal power change as indicated by the change in net megawatt output which resulted in his failure to notify Chemistry Department to obtain and perform the required sample analysis within 2 to 6 hours following the thermal power change.

ANALYSIS OF THE EVENT:

This event is reportable under 10 CFR 50.73 (a) (2) (i) (B), any operation or condition prohibited by Technical Specifications. Technical Specifications require that while operating in Modes 1, 2, 3, 4, and 5, the specific activity of the primary coolant shall be limited to 1.0 microcurie per gram Dose Equivalent I-131. The surveillance requirement is to obtain a sample and analyze for DEQ I-131 within 2 to 6 hours following a thermal power change exceeding 15% in one hour. A sample was obtained at 0841 EDT, on April 8, 1988, which was approximately 8 hours beyond the surveillance time limit. The sample analysis indicated DEQ I-131 to be 0.0689 microcurie per gram DEQ I-131, which was well within the Technical Specification limit of 1.0 microcurie per gram DEQ I-131. Based on the sample analysis, it has demonstrated that the Plant condition was well within the Technical Specification and the health and safety of the public was not endangered during the entire event.



|   |  |                |                   |                 |          |    |    |
|---|--|----------------|-------------------|-----------------|----------|----|----|
| FACILITY NAME (1)<br><br>ST. LUCIE UNIT 2 | DOCKET NUMBER (2)<br><br>0 5 0 0 0 3 8 9 | LER NUMBER (6) |                   |                 | PAGE (3) |    |    |
|   |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |    |
|   |  | 88             | 004               | 00              | 03       | OF | 03 |

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

CORRECTIVE ACTIONS:

1. A sample was immediately obtained and analyzed for specific activity and the sample analysis showed that the specific activity of the primary coolant was 0.0689 microcurie per gram DEQ I-131, which was well within the Technical Specification limit of 1.0 microcurie per gram DEQ I-131.
2. Plant Management has emphasized to Plant personnel the importance of performing Technical Specification surveillances in a timely manner.
3. The Plant Training Group will evaluate this item to determine appropriate training requirements and methods.
4. The Instrument and Control Department found an error in the setpoint calculation program for the Reactor power rate of change alarm and corrected it.

ADDITIONAL INFORMATION:

PREVIOUS SIMILAR EVENT:

For a similar event, see LER #389-87-006, which pertains to a missed surveillance on the 2A and 2B Diesel Generator Load Sequencing Relay.

**FPL**

MAY 09 1988

L-88-205  
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: 88-04  
Date of Event: April 7, 1988  
Missed Surveillance on Specific Activity  
Sample Analysis Due to Personnel Error

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,

  
W. F. Conway  
Acting Group Vice President  
Nuclear Energy

WFC/GRM/gp

Attachment

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

GRM2/029.LER

*TEZZ*  
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