

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8808190221      DOC.DATE: 88/08/15      NOTARIZED: NO      DOCKET #  
 FACIL:50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co.      05000335  
 AUTH.NAME      AUTHOR AFFILIATION  
 JOHNSON,A.B.      Florida Power & Light Co.  
 CONWAY,W.F.      Florida Power & Light Co.  
 RECIP.NAME      RECIPIENT AFFILIATION

SUBJECT: LER 88-005-00:on 880714,inadvertent start of 1A diesel generator during trouble shooting due to personnel error.  
W/8      ltr.

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

**NOTES:**

	RECIPIENT ID CODE/NAME	COPIES LTTR	ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	ENCL
	PD2-2 LA	1	1	PD2-2 PD	1	1
	TOURIGNY,E	1	1			
INTERNAL:	ACRS MICHELSON	1	1	ACRS MOELLER	2	2
	ACRS WYLIE	1	1	AEOD/DOA	1	1
	AEOD/DSP/NAS	1	1	AEOD/DSP/ROAB	2	2
	AEOD/DSP/TPAB	1	1	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	NRR/DEST/PSB 8D	1	1
	NRR/DEST/RSB 8E	1	1	NRR/DEST/SGB 8D	1	1
	NRR/DLPQ/HFB 10	1	1	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
	NUDOCS-ABSTRACT	1	1	<del>REG-FILE</del> 02	1	1
	RES TELFORD,J	1	1	RES/DSIR DEPY	1	1
	RES/DSIR/EIB	1	1	RGN2 FILE 01	1	1
EXTERNAL:	EG&G WILLIAMS,S	4	4	FORD BLDG HOY,A	1	1
	H ST LOBBY WARD	1	1	LPDR	1	1
	NRC PDR	1	1	NSIC HARRIS,J	1	1
	NSIC MAYS,G	1	1			

TOTAL NUMBER OF COPIES REQUIRED: LTTR      46      ENCL      45

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) St. Lucie, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 3 5	PAGE (3) 1 OF 0 3
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TITLE (4) INADVERTENT START OF 1A DIESEL GENERATOR DURING TROUBLESHOOTING DUE TO PERSONNEL ERROR

EVENT DATE (6)			LER NUMBER (8)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																																																																																	
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">OPERATING MODE (9)</td> <td style="width:5%;">5</td> <td colspan="10">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="6">POWER LEVEL (10) 0 0 0</td> <td></td> <td>20.402(b)</td> <td></td> <td>20.406(c)</td> <td><input checked="" type="checkbox"/></td> <td>50.73(a)(2)(iv)</td> <td></td> <td>73.71(b)</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>20.406(a)(1)(i)</td> <td></td> <td>50.36(c)(1)</td> <td></td> <td>50.73(a)(2)(v)</td> <td></td> <td>73.71(c)</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>20.406(a)(1)(ii)</td> <td></td> <td>50.36(c)(2)</td> <td></td> <td>50.73(a)(2)(vi)</td> <td></td> <td>OTHER (Specify in Abstract below and in Text, NRC Form 365A)</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>20.406(a)(1)(iii)</td> <td></td> <td>50.73(a)(2)(i)</td> <td></td> <td>50.73(a)(2)(vii)(A)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>20.406(a)(1)(iv)</td> <td></td> <td>50.73(a)(2)(ii)</td> <td></td> <td>50.73(a)(2)(vii)(B)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>20.406(a)(1)(v)</td> <td></td> <td>50.73(a)(2)(iii)</td> <td></td> <td>50.73(a)(2)(a)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)										POWER LEVEL (10) 0 0 0		20.402(b)		20.406(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)		73.71(b)					20.406(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)					20.406(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 365A)					20.406(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(vii)(A)							20.406(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(vii)(B)							20.406(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(a)					
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LICENSEE CONTACT FOR THIS LER (12)

NAME A. B. Johnson, Shift Technical Advisor	TELEPHONE NUMBER AREA CODE 4 1 0 7 4 1 6 5 1 - 1 3 5 6 1 0
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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	
X	E   K	6   2	A   3   4   8	Y							

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)

On July 14, 1988, the 1A Diesel Generator was inadvertently started at the local Diesel Generator Control Panel. The inadvertent start was a result of testing a relay in the diesel generator start circuits via an electrical jumper. The troubleshooting activity was limited to testing of a designated relay. The starting of the diesel generator was not part of the planned troubleshooting activity.

The root cause of the event was a cognitive personnel error by a utility maintenance supervisor and a utility system engineer who did not fully understand the effects of testing the relay.

The personnel involved have been counselled on the need to perform a more thorough review to fully understand the effects on plant systems before testing components in control circuits.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  St. Lucie Unit 1	DOCKET NUMBER (2)  0   5   0   0   0   3   3   5	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8   8	—   0   0   5	—   0   0	0   2	OF	0   3

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

DESCRIPTION OF EVENT

At 1357 hours on July 14, 1988, with the Unit in Mode 5 and the 1A Diesel Generator (EIIS:EK) out of service, the 1A Diesel Generator was inadvertently started locally from the 1A Diesel Generator Control Panel. The inadvertent start was a result of testing a relay in the 1A Diesel Generator Start Circuits via electrical jumper. The electrical jumper not only energized the intended relay for testing but also energized the start relay for the diesel generator. The purpose of the testing activity was to locate a faulty relay that failed to work properly during the 18 month Engineered Safety Feature (EIIS:BE,BP,BQ,EK) surveillance test. The control room was immediately aware of the inadvertent start of the 1A Diesel Generator. The Reactor Control Operator secured the diesel generator through its normal shutdown sequence.

CAUSE OF EVENT

The root cause of the event was a cognitive personnel error by a utility maintenance supervisor and a utility system engineer who did not fully understand the effects on the system of testing the relay. The troubleshooting activity was covered by an approved Plant Work Order procedure. However, the specific troubleshooting steps were determined in the field. There were no unusual characteristics of the work location that directly contributed to the personnel error.

The faulty relay was identified to be a time delay pickup relay in the diesel generator output breaker closing circuits. Its contacts failed to open after its one second time delay, thus preventing the 1A Diesel Generator output breaker from closing during the 18 Month Engineered Safety Feature test.

ANALYSIS OF EVENT

This event is reportable under 10 CFR 50.73 (a)(2)(iv) because it resulted in an automatic actuation of an Engineered Safety Feature that was not part of a preplanned sequence during testing. However, the event was determined to have had a negligible impact on plant safety because only one diesel generator was required to be operable in Mode 5. The 1B Diesel Generator was operable during this event. Furthermore, in the plant Modes when both diesel generators are required, the Technical Specification allows a diesel generator to be placed out of service for maintenance testing provided that the ACTION STATEMENT is met for the Limiting Condition For Operation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
St. Lucie Unit 1	0 5 0 0 0 3 3 5	8 8	0 0 5	0 0	0 3	OF	0 3

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

CORRECTIVE ACTIONS

1. The 1A Diesel Generator was secured through its normal shutdown sequence.
2. The faulty relay was replaced and the 1A Diesel Generator was returned back to service.
3. A Human Performance Evaluation System (HPES) evaluation was performed to determine root causes of the personnel error.
4. The personnel involved have been counselled on the need to perform a more thorough review to fully understand the full effects on plant systems before testing components in control circuits.

ADDITIONAL INFORMATION

FAILED COMPONENT INFORMATION:

Manufacturer: AMERACE Corp. (Agastat 7000 Series Relay)

Model #: 7012 PA

PREVIOUS SIMILAR EVENTS:

For the most recent LER involving Auto Start of the Emergency Diesel generator due to personnel error, see: LER #335-86-007



AUGUST 15 1988

L-88-341  
10 CFR 50.73

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

Gentlemen:

Re: St. Lucie Unit 1  
Docket No. 50-335  
Reportable Event: 88-05  
Date of Event July 14, 1988  
Inadvertent Start of 1A Diesel Generator  
During Troubleshooting 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  
Senior Vice President - Nuclear

WFC/GRM/cm

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

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