

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8708130177      DOC. DATE: 87/08/10      NOTARIZED: NO      DOCKET #  
 FACIL: 50-251 Turkey Point Plant, Unit 4, Florida Power and Light Co      05000251  
 AUTH. NAME      AUTHOR AFFILIATION  
 HART, R. D.      Florida Power & Light Co.  
 WOODY, C. D.      Florida Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 87-013-00: on 870710, Tech Spec 3.5-2, Item 3.2b exceeded requirements. Caused by failure of relay 327TX4C2 in undervoltage protection scheme for 4C 480 volt load ctr. Relay 327TX/4C2 replaced. W/870810 itr.

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
	McDONALD, D	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1
	DEDRO	1 1	NRR/DEST/ADE	1 0
	NRR/DEST/ADS	1 0	NRR/DEST/CEB	1 1
	NRR/DEST/ELB	1 1	NRR/DEST/ICSB	1 1
	NRR/DEST/MEB	1 1	NRR/DEST/MTB	1 1
	NRR/DEST/PSB	1 1	NRR/DEST/RSB	1 1
	NRR/DEST/SGB	1 1	NRR/DLPQ/HFB	1 1
	NRR/DLPQ/QAB	1 1	NRR/DOEA/EAB	1 1
	NRR/DREP/RAB	1 1	NRR/DREP/RPB	2 2
	NRR/PMAS/ILRB	1 1	REG FILE 02	1 1
	RES DEPY GI	1 1	RES TELFORD, J	1 1
	RES/DE/EIB	1 1	RGN2 FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	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 44 ENCL 42



**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1) <b>Turkey Point Unit 4</b>										DOCKET NUMBER (2) <b>0 5 0 0 0 2 5 1</b>										PAGE (3) <b>1 OF 0 3</b>	
TITLE (4) <b>Technical Specification 3.0.1 Entered</b> <b>When 480 Volt Undervoltage Relay Failed Periodic Testing</b>																					
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 7	1 0	8 7	8 7	0 1 3	0 0	0 8	1 0	8 7	N/A						0 5 0 0 0						
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																		
1			20.402(b)				20.405(c)				60.73(a)(2)(iv)				73.71(b)						
POWER LEVEL (10)			20.406(a)(1)(i)				60.38(c)(1)				60.73(a)(2)(v)				73.71(c)						
0 7 1 6			20.405(a)(1)(ii)				50.38(c)(2)				60.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 356A)						
			20.406(a)(1)(iii)				X 60.73(a)(2)(i)				60.73(a)(2)(viii)(A)										
			20.406(a)(1)(iv)				60.73(a)(2)(ii)				60.73(a)(2)(viii)(B)										
			20.406(a)(1)(v)				60.73(a)(2)(iii)				60.73(a)(2)(ix)										
LICENSEE CONTACT FOR THIS LER (12)																					
NAME										TELEPHONE NUMBER											
Randall D. Hart, Licensing Engineer										AREA CODE		3 0 5 2 4 6 - 6 5 5 9									
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																					
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC												
X	J E	R L Y	G 0 8 0	Y																	
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)				MONTH	DAY	YEAR					
X YES (If yes, complete EXPECTED SUBMISSION DATE)																					
NO																					
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)																					

On July 10, 1987, the requirements of Technical Specification (TS) Table 3.5-2, item 3.2.b were exceeded. During the performance of operating procedure (OP) 9404.2, 4160 volt and 480 volt switchgear - undervoltage test, the undervoltage protection circuit for the 4C 480 volt load center would not pass the test. This channel was declared out of service and maintenance was requested to investigate the occurrence. TS section 3.5, Table 3.5-2 (Engineered Safety Features Actuation), item 3.2.b requires that for the 480V load centers power operation may continue with one channel inoperable as long as the inoperable channel is placed in the tripped condition. Operations attempted to place the channel in the tripped mode but were unable to do this due to the failure and the design of the system. TS Table 3.5-2, item 3.2.b does not provide an action statement for this condition. This required Unit 4 to be placed into TS 3.0.1 which requires the unit to be in hot standby in 7 hours. Maintenance replaced relay 327TX4C2 at 1523. OP 9404.2 was recommenced and the replaced relay was satisfactorily tested at 1528. This took the unit out of TS 3.0.1. The cause of the event was a failure of relay 327TX/4C2 in the undervoltage protection scheme for the 4C 480 volt load center. Our Engineering Department has been requested to evaluate this failure to determine root cause and appropriate corrective actions.

8708130177 870810  
PDR ADOCK 05000251  
S PDR

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER				
Turkey Point 4	0 5 0 0 0 2 5 1	8 7	— 0 1 3	— 0 0	0 2	OF	0	3

TEXT (If more space is required, use additional NRC Form 368A's) (17)

EVENT:

On July 10, 1987, the requirements of Technical Specification (TS) Table 3.5-2, item 3.2.b were exceeded. At 1430 during the performance of operating procedure (OP) 9404.2, 4160 volt and 480 volt switchgear - undervoltage test, the undervoltage protection circuit for the 4C 480 volt load center would not pass the test. The red indicating light did not come on as required by the procedure. This channel was declared out of service and the Electrical Maintenance Department was requested to investigate the occurrence. They discovered that relay 327TX4C2 had failed. This relay is one of two instantaneous relays that sense undervoltage on the 4C 480 volt load center. TS section 3.5, Table 3.5-2 (Engineered Safety Features Actuation), item 3.2.b requires that for the 480V load centers, power operation may continue with one channel inoperable as long as the inoperable channel is placed in the tripped condition. Operations attempted to place the channel in the tripped mode but were unable to do this because of the relay failure and the design of the circuit. TS Table 3.5-2, item 3.2.b does not provide an action statement for this condition. This required Unit 4 to be placed into TS 3.0.1 which requires the unit to be in hot standby in 7 hours. Electrical Maintenance replaced relay 327TX4C2 at 1523. OP 9404.2 was recommenced and the replaced relay was satisfactorily tested at 1528. This took the unit out of TS 3.0.1.

CAUSE OF EVENT:

The cause of the event was a failure of relay 327TX/4C2 in the undervoltage protection scheme for the 4C 480 volt load center.

ANALYSIS OF EVENT:

Upon identification of the failure, the affected relay was replaced and returned to service within 1 hour so no unit shutdown was commenced. Our Engineering Department has been requested to evaluate this failure to determine root cause, appropriate corrective actions and the safety significance of this event. Should this evaluation significantly change the information provided in this LER, a LER update will be sent accordingly.

CORRECTIVE ACTIONS:

- 1) Relay 327TX/4C2 was replaced and satisfactorily tested within 1 hour of the initial failure.
- 2) Our Engineering Department has been requested to evaluate this concern to assist in identifying the root cause and appropriate corrective actions. Engineering will schedule the completion of this request in accordance with the Integrated Schedule.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

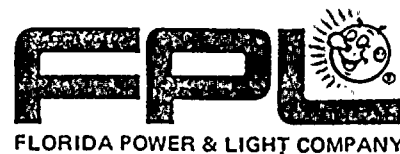
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Turkey Point 4	0 5 0 0 0 2 5 1	8 7	— 0 1 3	— 0 0	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 368A's) (17)

ADDITIONAL DETAILS:

The affected relay is manufactured by General Electric and is model number CR120BD04341.

Similar Occurrences: none



AUGUST 10 1987

L-87-328  
10 CFR 50.73

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

Gentlemen:

Re: Turkey Point Unit 4  
Docket No. 50-251  
Reportable Event: 87-13  
Date of Event: July 10, 1987  
Technical Specification 3.0.1 Entered When  
480 Volt Undervoltage Relay Failed Periodic Testing

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,

C. O. Woody  
Group Vice President  
Nuclear Energy

COW/SDF/gp

Attachment

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

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