

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8706260005 DOC. DATE: 87/06/19 NOTARIZED: NO DOCKET #
 FACIL: 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
 AUTH. NAME AUTHOR AFFILIATION
 SALAMON, G. Florida Power & Light Co.
 WOODY, C. O. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-010-00: on 870522, emergency diesel generator
 auto-started during testing of 4,160-volt bus undervoltage
 protection circuit. Caused by personnel error. Personnel
 counseled & procedure revised. W/870619 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
	McDONALD, D	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	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
	NRR/PMAS/PTSB	1 1	<u>REG FILE</u> 02	1 1
	RES DEPY GI	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 42 ENCL 40

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Turkey Point Unit 4										DOCKET NUMBER (2) 0 5 0 0 0 2 5 1										PAGE (3) 1 OF 3	
TITLE (4) Emergency Diesel Generator Auto-Start Due to Personnel Error During Testing of the 4160 Volt Bus Undervoltage Protection Circuit																					
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)									
0	5	2	8	7	8	7	0	1	0	0	6	1	9	8	7	Turkey Point Unit 3			0 5 0 0 0 2 5 0		
									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)																			
5		20.402(b)				20.405(e)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)							
POWER LEVEL (10)		0, 0, 0				20.406(a)(1)(i)				50.73(a)(2)(v)				73.71(c)							
		20.406(a)(1)(ii)				50.38(c)(1)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)							
		20.406(a)(1)(iii)				50.38(c)(2)				50.73(a)(2)(vii)											
		20.406(a)(1)(iv)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)											
		20.406(a)(1)(v)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)											
		20.406(a)(1)(vi)				50.73(a)(2)(iii)				50.73(a)(2)(ix)											
LICENSEE CONTACT FOR THIS LER (12)																					
NAME Gabe Salamon, Compliance Engineer										TELEPHONE NUMBER											
										AREA CODE 3 0 5 2 4 6 - 6 5 6 0											
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											
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR					
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO									

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

On May 22, 1987, at 1725, with Unit 3 defueled and Unit 4 in Mode 5, the "B" Emergency Diesel Generator (EDG) auto-started. At the time of the event, electricians were performing timing checks of timing relays associated with the "B" 4160 volt bus undervoltage (UV) protection circuit. While disconnecting a UV sensing lead to disable the UV logic, a jumper which was connected to the same terminal was also inadvertently lifted. Instead of reconnecting the jumper to the terminal, the electrician taped both the jumper and the UV lead together thus completing a path for the UV logic. Therefore, when the associated timing relay was energized, an undervoltage signal was sensed by the 4B 4160 volt bus UV circuitry. This initiated 4B bus stripping and auto-starting of the "B" EDG. The "B" EDG started as designed but did not load onto the 4B bus due to its supply breaker, (breaker 4AB21), being racked out on a clearance for sequencer work. This left the 4B bus deenergized and the "B" EDG running unloaded. The "B" EDG was secured at 1738 and returned to normal standby alignment as per plant procedures. The electricians reconnected the jumper to its appropriate terminal. At 1740, upon verifying the cause of loss of power to be a testing error, offsite power to the 4B 4160 volt bus was restored.

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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 Unit 4	0 5 0 0 0 2 5 1 8 7	—	0 1 0	— 0 0	0 2	OF	0 3

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

EVENT

On May 22, 1987, at 1725, with Unit 3 defueled and Unit 4 in Mode 5, the "B" Emergency Diesel Generator (EDG) auto-started. At the time of the event, electricians were performing timing checks of timing relays associated with the "B" 4160 volt bus undervoltage protection circuit in accordance with approved plant procedures. While disconnecting an undervoltage sensing lead from a terminal in order to disable the undervoltage logic, a jumper which was also connected to the same terminal was inadvertently lifted. Instead of reconnecting the jumper to the terminal, the electrician taped both the jumper and the undervoltage lead together thus reconnecting the path for the undervoltage logic. Therefore, when the associated timing relay was energized, the two leads which were taped together resulted in an undervoltage signal being sensed by the 4B 4160 volt bus undervoltage circuitry. This initiated 4B bus stripping and auto-starting of the "B" EDG. The "B" EDG started as designed but did not load onto the 4B bus due to its supply breaker, (breaker 4AB21), being racked out on a clearance for sequencer work. At this time the 3B bus was being powered from the normal off site power supply. This left the 4B bus deenergized and the "B" EDG running unloaded. Fuse FU2 in the 4B sequencer was pulled in order to deenergize the 4B sequencer and allow for the securing of the "B" EDG. The "B" EDG was secured at 1738 and returned to normal standby alignment as per plant procedures. The electricians reconnected the jumper to its appropriate terminal. At 1740, upon verifying the cause of loss of power to be a testing error, offsite power to the 4B 4160 volt bus was restored.

CAUSE OF EVENT

The cause of the event was personnel error in that the electrician involved did not strictly follow the procedure by failing to leave the jumper in place. Once the jumper was removed it should have been reconnected to its original terminal. Because the jumper was taped to the undervoltage sensing lead, the circuit for undervoltage logic was again complete. Energizing an undervoltage relay subsequent to this caused an undervoltage signal to be sensed.

ANALYSIS OF EVENT

Upon receipt of the undervoltage signal, the 4B bus stripped its loads and the "B" EDG auto-started and ran properly. Because the 4B bus was stripped and the "B" EDG supply breaker racked out, the 4B bus was not energized. The 4B bus remained deenergized for only 15 minutes. Vital

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Turkey Point Unit 4	0 5 0 0 0 2 5 1	8 7	— 0 1 0	— 0 0	0 3	OF	0 3

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

loads were being powered from the 4A bus at the time of the event. The "A" EDG was operable throughout the event. Based on the above, the health and safety of the public were not affected.

CORRECTIVE ACTION

- 1) Plant procedures for loss of the 4B bus were followed and the cause was verified.
- 2) Electrical testing of the 4B sequencer was halted until the Unit could be restored to normal alignment. The jumper was reconnected to its proper terminal. Prior to resuming electrical testing, the event was discussed with the electricians to ensure the problem was understood and would not recur.
- 3) The 4B 4160 volt bus was re-energized per plant procedures at 1740 on May 22, 1987.
- 4) The temporary procedure used for the testing will be revised and rewritten as a permanent plant procedure.

ADDITIONAL DETAILS

Similar occurrences: LER 250-85-016.



JUNE 19 1987

L-87-255
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: 87-10
Date of Event: May 22, 1987
Emergency Diesel Generator Auto-Start Due to Personnel Error
During Testing of the 4160 Volt Bus Undervoltage Protection Circuit

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 Inspection, USNRC, Turkey Point Plant

IE22
11

