

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER
INCIDENT REPORT

TO:
Mr. Norman C. Moseley

FROM:
Florida Power & Light Company
Miami, Florida
A. D. Schmidt

DATE OF DOCUMENT
2/7/77

DATE RECEIVED
2/17/77

LETTER
 ORIGINAL
 COPY

NOTORIZED
 UNCLASSIFIED

PROP

INPUT FORM

NUMBER OF COPIES RECEIVED
One signed copy

DESCRIPTION

Ltr. trans the following:

PLANT NAME: (1-P)
Turkey Point Unit No. 3

ENCLOSURE

Licensee Event Report (RO 50-251/77-1) on 1/8/77 concerning four defective Westinghouse BFD relays in the Unit 3 reactor protective system.....

DO NOT REMOVE

ACKNOWLEDGED

NOTE: IF PERSONNEL EXPOSURE IS INVOLVED SEND DIRECTLY TO KREGER/J. COLLINS

FOR ACTION/INFORMATION 2/18/77

RJL

<input checked="" type="checkbox"/> BRANCH CHIEF:	Lear
<input type="checkbox"/> W/3 CYS FOR ACTION	
<input checked="" type="checkbox"/> LIC. ASST.:	Parrish
<input type="checkbox"/> W/ CYS	
<input checked="" type="checkbox"/> ACRS 16 CYS HOLDING/SENT:	Lot. B. (2/18/77)

INTERNAL DISTRIBUTION

<input checked="" type="checkbox"/> REG-FILE	
<input checked="" type="checkbox"/> NRC PDR	
<input checked="" type="checkbox"/> I & E (2)	
<input checked="" type="checkbox"/> MIPC	
<input checked="" type="checkbox"/> SCHROEDER/IPPOLITO	
<input checked="" type="checkbox"/> HOUSTON	
<input checked="" type="checkbox"/> NOVAK/CHECK	
<input checked="" type="checkbox"/> GRIMES	
<input checked="" type="checkbox"/> CASE	
<input checked="" type="checkbox"/> BUTLER	
<input checked="" type="checkbox"/> HANAUER	
<input checked="" type="checkbox"/> TEDESCO/MACCARY	
<input checked="" type="checkbox"/> EISENHUT	
<input checked="" type="checkbox"/> BAER	
<input checked="" type="checkbox"/> SHAO	
<input checked="" type="checkbox"/> VOLLMER/BUNCH	
<input checked="" type="checkbox"/> KREGER/J. COLLINS	

EXTERNAL DISTRIBUTION

CONTROL NUMBER

<input checked="" type="checkbox"/> LPDR: Miami, Fla.	
<input checked="" type="checkbox"/> TIC:	
<input checked="" type="checkbox"/> NSIC:	

1688

12

11/11/11

11/11/11

11/11/11

11/11/11

11/11/11

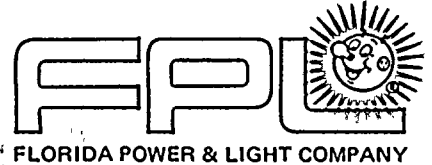
11/11/11

(11) (11)

11/11/11

11/11/11

11/11/11



February 7, 1977

PRN-LI-77-30

Mr. Norman C. Moseley, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
230 Peachtree Street, N. W., Suite 1217
Atlanta, Georgia 30303

Dear Mr. Moseley:

REPORTABLE OCCURRENCE 251-77-1
TURKEY POINT UNIT 4
DATE OF OCCURRENCE: JANUARY 8, 1977

"BFD" RELAYS

The attached Licensee Event Report is being submitted in accordance with Technical Specification 6.9.2 to provide 30-day notification of the subject occurrence.

Very truly yours,

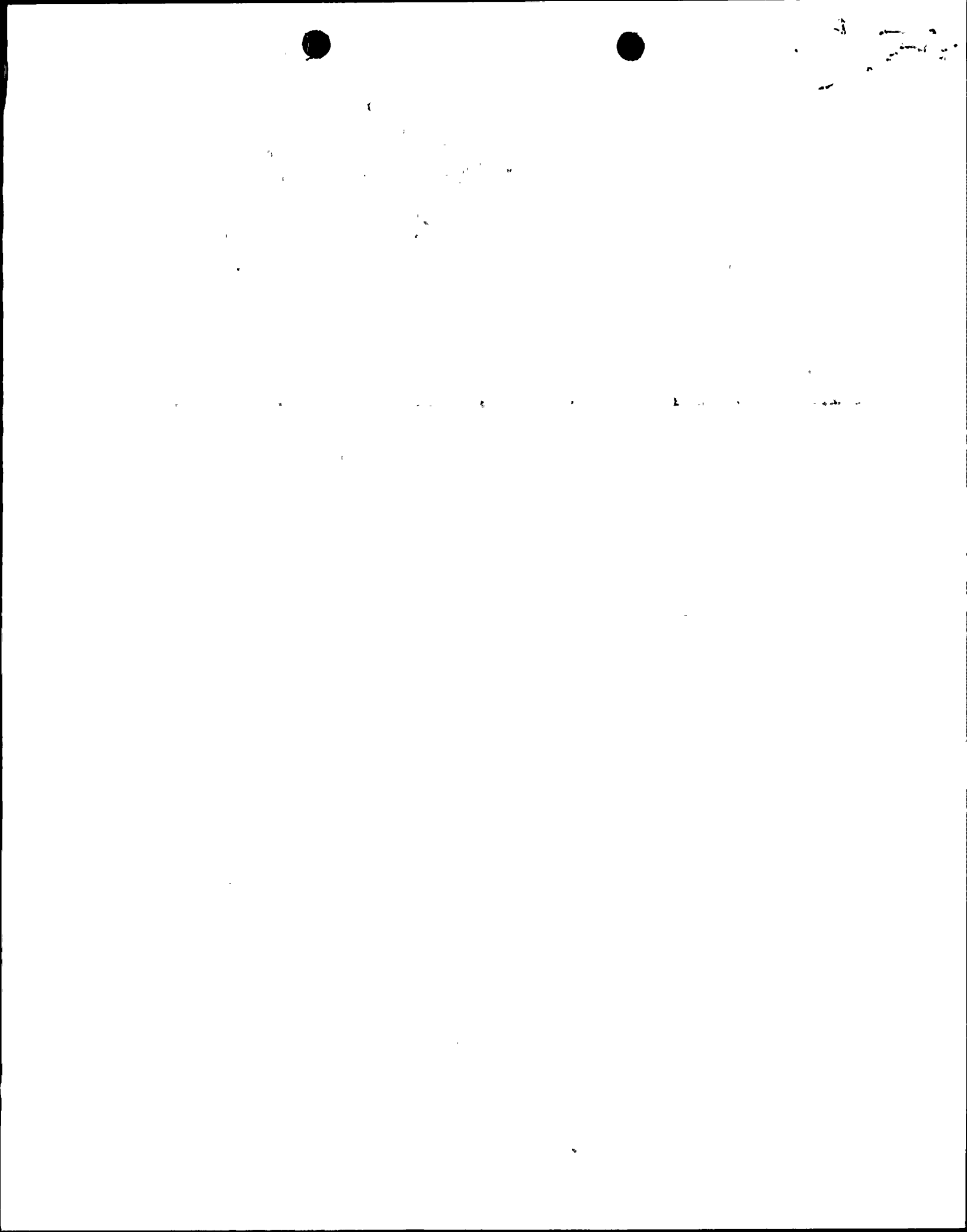
Ed Woody
A. D. Schmidt
Vice President
Power Resources

MAS/cpc

Attachment

cc: Robert Lowenstein, Esquire
Director, Office of Inspection and Enforcement (30)
Director, Office of Management Information and
Program Control (3)

1688



LICENSEE EVENT REPORT

CONTROL BLOCK:

--	--	--	--	--	--

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME						LICENSE NUMBER						LICENSE TYPE				EVENT TYPE										
01	F	I	T	P	S	4	0	0	-	0	0	0	0	0	0	4	1	1	1	1	0	3				
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29				
01		CONT		CATEGORY		REPORT TYPE		REPORT SOURCE		DOCKET NUMBER				EVENT DATE				REPORT DATE								
01	7	8	57	58	L	L	0	5	0	-	0	2	5	1	0	1	0	8	7	7	0	2	0	7	7	7
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	

EVENT DESCRIPTION

02	Reportable Occurrence report 250-77-1 described the finding of 4 defective																							80
03	Westinghouse BFD relays in the Unit 3 reactor protection system. As a																							80
04	result of the Unit 3 occurrence, all BFD relays in the Unit 4 reactor																							80
05	protection system were also tested for operability. Two relays in circuit																							80
06	Train A, RT-4 and RT-5, were found to have open circuited coils and were																							80

SYSTEM CODE		CAUSE CODE		COMPONENT CODE				PRIME COMPONENT SUPPLIER		COMPONENT MANUFACTURER			VIOLATION												
07	I	A	E	R	E	L	A	Y	X	N	W	1	2	0	N										
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

CAUSE DESCRIPTION

08	The defective relays were Westinghouse type BFD with coil style 503C428G21																							80
09	(varnished cloth outer cover) rated for 125/130 volts dc. The probable																							80
10	cause of the occurrence was overheating of the coils during battery																							80

FACILITY STATUS		% POWER			OTHER STATUS			METHOD OF DISCOVERY		DISCOVERY DESCRIPTION															
11	G	0	0	0	N/A			C	N/A																
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE		AMOUNT OF ACTIVITY				LOCATION OF RELEASE																	
12	Z	Z	N/A				N/A																		
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

PERSONNEL EXPOSURES

NUMBER		TYPE		DESCRIPTION																					
13	0	0	0	Z	N/A																				
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

PERSONNEL INJURIES

NUMBER		DESCRIPTION																							
14	0	0	0	N/A																					
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

PROBABLE CONSEQUENCES

15	N/A																							80
----	-----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

LOSS OR DAMAGE TO FACILITY

TYPE		DESCRIPTION																				
16	Z	N/A																				80

PUBLICITY

17	N/A																							80
----	-----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

ADDITIONAL FACTORS

18	See Page Two for continuation of Event Description and Cause Description.																							80
----	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

19																								80
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

NAME: M. A. Schoppman

PHONE: 305/552-3779



38
1-1-11

Event Description (Continued)

in the tripped mode. One permissive relay in Train A, P8-2, was also found to have an open circuited coil. All redundant circuit Train B relays were found to be operable. The malfunctioning relays had all been previously tested in accordance with Westinghouse Technical Bulletin NSD-TB-76-2 and IE Bulletin 76-05 in February, 1976, at which time they were found to be operable, i.e., they had drop out times of less than 30 milliseconds. Unit 4 was shutdown during this occurrence, and the defective relays were replaced before returning the Unit to power operation. This was the first reportable occurrence of this type at Turkey Point Unit 4. There has been one similar occurrence at Unit 3, and it was reported as LER 250-77-1 (251-77-1).

Cause Description (Continued)

charging operations. These relays are normally energized from the 125 volt dc bus, and during battery charges may be subjected to higher voltages. Apparently, overheating can cause either deformation resulting in longer drop out times or open circuit failure. The defective relays were replaced with relays containing coil style 1259C71G19.

Additional corrective action will be to replace all old style BFD relays in the Unit 4 safety related systems in accordance with recommendations contained in Westinghouse Technical Bulletin NSD-TB-76-16.

