

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9005220150    DOC. DATE: 90/05/15    NOTARIZED: NO    DOCKET #  
 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light Co    05000250  
 AUTH. NAME    AUTHOR AFFILIATION  
 POWELL, D.R.    Florida Power & Light Co.  
 HARRIS, K.N.    Florida Power & Light Co.  
 RECIPIENT NAME    RECIPIENT AFFILIATION

SUBJECT: LER 90-008-00: on 900415, Train B safeguards actuation during performance of surveillance test due to component failure.  
 W/9    ltr.

DISTRIBUTION CODE: IE22T    COPIES RECEIVED: LTR 1 ENCL 1 SIZE: S  
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	PD2-2 LA		1	1		PD2-2 PD		1	1
	EDISON, G		1	1					
INTERNAL:	ACNW		2	2		AEOD/DOA		1	1
	AEOD/DSP/TPAB		1	1		AEOD/ROAB/DSP		2	2
	DEDRO		1	1		NRR/DET/ECMB 9H		1	1
	NRR/DET/EMEB9H3		1	1		NRR/DLPQ/LHFB11		1	1
	NRR/DLPQ/LPEB10		1	1		NRR/DOEA/OEAB11		1	1
	NRR/DREP/PRPB11		2	2		NRR/DST/SELB 8D		1	1
	NRR/DST/SICB 7E		1	1		NRR/DST/SPLB8D1		1	1
	NRR/DST/SRXB 8E		1	1		<u>REG FILE</u> 02		1	1
	RES/DSIR/EIB		1	1		RGN2 FILE 01		1	1
EXTERNAL:	EG&G STUART, V.A		4	4		L ST LOBBY WARD		1	1
	LPDR		1	1		NRC PDR		1	1
	NSIC MAYS, G		1	1		NSIC MURPHY, G.A		1	1
	NUDOCS FULL TXT		1	1					

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MAY 15 1990

L-90-162  
10 CFR 50.73


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

Gentlemen:

Re: Turkey Point Units 3 and 4  
Dockets No. 50-250 and 50-251  
Reportable Event: 90-008  
Date of Event: April 15, 1990  
Train B Safeguards Actuation During Performance of  
Surveillance Test Due to Component Failure

The attached Licensee Event Report is being provided pursuant to the requirements of 10 CFR 50.73 for notification of the subject event.

Very truly yours,

  
K. N. Harris  
Vice President  
Turkey Point Plant Nuclear

KNH/DRP/DPS/dps

Attachment

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant

9005220150 900515  
PDR ADOCK 05000250  
S PDC

*Handwritten:* 1522  
11

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Turkey Point Unit 3</b>						DOCKET NUMBER (2) <b>0 5 0 0 0 2 5 0</b>			PAGE (3) <b>1 OF 0 4</b>		
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TITLE (4)  
**Train B Safeguards Actuation During Performance of Surveillance Test Due To Component Failure**

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 4	1 5	9 0	9 0	0 0 8	0 0 0	0 5	1 5	9 0	Turkey Point Unit 4		0 5 0 0 0 2 5 1

OPERATING MODE (9) **1**

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input checked="" type="checkbox"/> 20.408(a)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.408(a)(1)(i)	<input type="checkbox"/> 50.36(a)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(e)
<input type="checkbox"/> 20.408(a)(1)(ii)	<input type="checkbox"/> 50.36(a)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 356A)
<input type="checkbox"/> 20.408(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	
<input type="checkbox"/> 20.408(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)	
<input type="checkbox"/> 20.408(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(viii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME		TELEPHONE NUMBER	
<b>David R. Powell, Superintendent of Licensing</b>		AREA CODE	<b>3 0 5 2 4 6 - 6 5 5 9</b>

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S
X	B P	R L K	5 3 8 2	No					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR
1 0	3 1	9 0

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

On April 15, 1990, at 0838 EDT, with the unit in Mode 5 (Cold Shutdown) a Unit 3 train B safeguards actuation occurred, which resulted in a SI system actuation, a containment spray system actuation, a phase A and B containment isolation, and automatic start of the B Emergency Diesel Generator. There was no safety injection flow to the reactor coolant system nor containment spray with the unit in Mode 5, because the discharge valves for the respective systems were closed per procedure. The B Emergency Diesel Generator started but did not load since there was no loss of vital buses. The operators, using the applicable emergency operating procedures, returned the unit to the normal configuration for Mode 5. This event was caused by a sticking contact in a pressure switch in the containment high pressure alarm circuit during performance of a surveillance test. The failed switch was replaced with a newer model. The failed switch is being returned to the manufacturer for failure analysis. This LER will be revised when the failure cause has been determined. Applicable procedures are being revised to check the status of other bistables that could lead to high or high-high containment pressure alarm actuation. A four hour report was made to the NRC at 1007 EDT in accordance with the requirements of 10 CFR 50.72 (b) (2) (ii).

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Turkey Point Unit 3	DOCKET NUMBER (2)  0 5   0   0   0   2   5   0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9   0	—   0   0   8	—   0   0	0   2	OF	0   4

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

I. EVENT DESCRIPTION

On April 15, 1990 at 0838 Eastern Daylight Time (EDT), with the unit in Mode 5 (Cold Shutdown) a Unit 3 Safety Injection (SI) System (EIIS:JE) actuation occurred. The SI occurred while disabling Train A safeguards by performing step 7.1.23 on procedure 3-OSP-203.2 "Train B Engineered Safeguards Integrated Test." Step 7.1.23 opened breaker 3D01-37. Containment high pressure switch, PS 2007 (EIIS:JC) (component:PS) had unknowingly failed and, with the opening of breaker 3D01-37, the logic for containment "Hi" and "Hi-Hi" pressure alarms and a train B safeguards actuation was completed. The train B safeguards actuation resulted in a SI system actuation, a containment spray system (EIIS:JC) actuation, a phase A and B containment isolation (EIIS:JM), and the automatic start of the B Emergency Diesel Generator (EIIS:EK) (component:DG). There was no safety injection flow to the reactor coolant system (EIIS:AB) nor containment spray with the unit in Mode 5, because the discharge valves for the respective systems were closed by procedure. The B Emergency Diesel Generator started but did not load since there was no loss of vital buses. The A Emergency Diesel Generator did not start since this was a B train safeguards actuation only and therefore there was no A train actuation signal. The operators, using the applicable emergency operating procedures, returned the unit to the normal configuration for Mode 5.

A four hour report was made to the NRC at 1007 EDT in accordance with the requirements of 10 CFR 50.72(b)(2)(ii).

II. EVENT CAUSE

This event was caused by high pressure switch PS 2007 failing high, making up half the logic for a containment "Hi" and "Hi-Hi" pressure alarm and safeguards actuation. Examination of the switch revealed one normally open contact was closed. The failed pressure switch is being returned to the manufacturer for failure analysis. When a root cause is determined, this LER will be revised to report the cause and corrective actions taken to prevent recurrence of the pressure switch failure.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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						9 0	- 0 0 8	- 0 0	0 3	OF	0 4

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

A secondary cause was inadequate procedural guidance in that procedure 3-OSP-203.2 did not require a check of other channel bistables to ensure that part of the safeguards logic was not already tripped. Containment high pressure switch PS 2007 had unknowingly failed, therefore the opening of breaker 3D01-37 completed the B train logic for containment "Hi" and "Hi-Hi" pressure alarms and a train B safeguards actuation.

**III. EVENT SAFETY ANALYSIS**

The diesel generator start and containment isolation are previously analyzed events. All equipment expected to start upon receipt of a train "B" safeguards actuation while the unit is in Mode 5 responded as per design. The other switches of the type that failed in this event were successfully tested during the current Unit 3 refueling outage or during the last Unit 4 refueling outage as part of the Engineered Safeguards Integrated test.

This event did not involve an actual high containment pressure condition, thus the health and safety of the public were not affected by this event.

**IV. CORRECTIVE ACTIONS**

- A. During subsequent cycling of High pressure switch PS 2007, no sticking was observed. On April 17, 1990, the switch was replaced with a newer model, tested, and returned to service. The other switches of this model installed in Unit 3 were successfully tested during the Engineered Safeguards Integrated test performed during the current Unit 3 refueling outage. The Unit 4 switches of this model will be tested as part of the Engineering Safeguards Integrated test performed during the next Unit 4 refueling outage.
  
- B. Procedures 3-OSP-203.1, "Train A Engineered Safeguards Integrated Test," 3-OSP-203.2, 4-OSP-203.1, "Train A Engineered Safeguards Integrated Test," and 4-OSP-203.2, "Train B Engineered Safeguards Integrated Test," will be revised prior to their next usage to check the status of other bistables that could lead to high or high-high containment pressure alarms and/or engineered safety feature actuation. These procedural revisions will be completed by December 31, 1990, and will be used as applicable, prior to the restart of each unit following the dual unit outage scheduled to begin in November, 1990.

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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Turkey Point Unit 3

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
09	10	8	0	0	4

TEXT IS CONTINUED ON REVERSE AND CONTAINS NRC Form 2520 (11)

## V. ADDITIONAL INFORMATION

### A. Similar Events

LER 250-89-011-00 reported two SI actuations that were caused by a mislabeled SI blocking switch.

### B. Equipment Failures

PS 2007 - model number 6N-AA2-XRR failed, and was replaced with model number 12N6-BB45-NX-CIA-JJTTX12. Both models were manufactured by Static-O-Ring.

