



NOV 05 1990

L-90-388
10 CFR 50.73

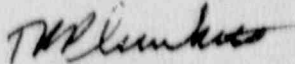
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Re: Turkey Point Unit 3
Docket No. 50-250
Reportable Event: 90-008-01
Date of Event: April 15, 1990
Train B Safeguards Actuation During Performance of
Surveillance Test Due To Component Failure

The attached Revision 1 to Licensee Event Report 250/90-008-00 is being submitted pursuant to the requirements of 10 CFR 50.73 and NUREG 1022, to present the results of further review of the event.

Very truly yours,


T. F. Plunkett
Vice President
Turkey Point Nuclear

TFP/DPS/ds

enclosure

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

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Turkey Point Unit 3 DOCKET NUMBER (2) 0 5 0 0 0 2 5 0 1 OF 0 4

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 NAME		DOCKET NUMBER (8)												
0	4	1	5	9	0	9	0	0	0	8	0	1	1	9	0	0	5	0	0	0	2	5	1

OPERATING MODE (9) 1

POWER LEVEL (10) 1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.73 (Check one or more of the following) (11)

20.622(b)	<input checked="" type="checkbox"/>	20.622(e)	<input type="checkbox"/>	20.73(a)(2)(iv)	<input type="checkbox"/>	20.731(b)	<input type="checkbox"/>
20.622(a)(1)(iii)	<input type="checkbox"/>	20.73(a)(1)	<input type="checkbox"/>	20.73(a)(2)(v)	<input type="checkbox"/>	20.731(c)	<input type="checkbox"/>
20.622(a)(1)(iv)	<input type="checkbox"/>	20.73(a)(2)	<input type="checkbox"/>	20.73(a)(2)(vi)	<input type="checkbox"/>	OTHER (Specify in Abstract below and in Text, NRC Form 805A)	
20.622(a)(1)(v)	<input type="checkbox"/>	20.73(a)(2)(iii)	<input type="checkbox"/>	20.73(a)(2)(vii)(A)	<input type="checkbox"/>		
20.622(a)(1)(vi)	<input type="checkbox"/>	20.73(a)(2)(iv)	<input type="checkbox"/>	20.73(a)(2)(vii)(B)	<input type="checkbox"/>		
20.622(a)(1)(vii)	<input type="checkbox"/>	20.73(a)(2)(iv)	<input type="checkbox"/>	20.73(a)(2)(ix)	<input type="checkbox"/>		

LICENSEE CONTACT FOR THIS LER (12)

NAME David R. Powell, Superintendent of Licensing TELEPHONE NUMBER 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	B P	RLK	5 3 8 2	No					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If you complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 words, i.e. approximately fifteen single-spaced 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 bus. 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 was disassembled and examined. No cause for the sticking contact could be determined. The switch was reassembled and subsequent test operations failed to repeat the failure. 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).

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Turkey Point Unit 3	05000250	90	008	01	02	OF 04

TEXT IF FROM 2888 IS REQUIRED. USE ADDRESS NRC Form 288A (1/77)

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)(i).

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. During subsequent cycling of High pressure switch PS 2007, no sticking was observed. The failed Switch was partially disassembled and functionally examined. No cause for the sticking contact could be determined. The switch was reassembled and subsequent test operations failed to repeat the failure.

Revision 0 of this LER stated that the switch would be returned to the manufacturer for analysis. The manufacturer recommended against doing the analysis since the switch was 20 years old, obsolete - no longer manufactured, and did not have a high failure rate. Based on the manufacturer's recommendation and the lack of similar failures, FPL did not return the switch to the vendor for analysis. FPL is replacing switches of the same type that are used in safety related systems during the upcoming dual unit outage.

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

TEXT IF MORE SPACE IS REQUIRED. USE ADDITIONAL NRC Form 288A (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 1990 Unit 3 refueling outage.
- B. The Unit 3 and Unit 4 switches of this type used in safety related systems will be replaced during the dual unit outage currently scheduled to start November 25, 1990.
- C. 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

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

TEXT IF MORE SPACE IS REQUIRED, USE ADDITIONAL NRC Form 250A (1/77)

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.