

## ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8906120258 DOC. DATE: 89/06/05 NOTARIZED: NO DOCKET #  
 FACIL: 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251  
 AUTH. NAME AUTHOR AFFILIATION  
 DAY, S.T. Florida Power & Light Co.  
 WOODY, C.O. Florida Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-003-00: on 890505, reactor trip during performance of  
 steam generator protection set III channel test.

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ltr.

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P.O. Box 14000, Juno Beach, FL 33408-0420

JUNE 5 1989

L-89-196  
10 CFR 50.73

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

Gentlemen:

Re: Turkey Point Unit 4  
Docket Nos. 50-251  
Reportable Event: 89-03  
Date of Event: May 5, 1989  
Reactor Trip During Performance of Steam  
Generator Protection Set III Channel Test

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*  
for C. O. Woody  
Acting Senior Vice President - Nuclear

COW/JRH/cm

Attachment

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

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PDR ADOCK 05000251  
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## 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 0 3		
TITLE (4) Reactor Trip During Performance of Steam Generator Protection Set III Channel Test																	
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	0 5	8 9	8 9	0 0 3	0 0	0 6	0 5	8 9					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)															
3		20.402(b)				20.405(e)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)			
POWER LEVEL (10)		20.405(a)(1)(i)				50.38(e)(1)				50.73(a)(2)(v)				73.71(c)			
0 0 0		20.405(a)(1)(ii)				50.38(e)(2)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vii)(A)							
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)							
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)							
LICENSEE CONTACT FOR THIS LER (12)																	
NAME Stanley T. Day, Jr., Compliance Engineer										TELEPHONE NUMBER							
										AREA CODE 3 0 5		2 4 6 1 - 6 5 9 0					
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																	
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS							
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR	
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)														0 9	0 4	8 9	
NO																	
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																	

On May 5, 1989, at 0152, with Unit 4 in Hot Standby, and during rod drop testing, a Reactor Protection System (RPS) actuation occurred while performing procedure 4-SMI-071.4. The reactor tripped when Instrumentation and Control personnel (non-licensed utility personnel) placed bistable BS-4-446-1 in the Test position in accordance with procedure 4-SMI-071.4. This simulated a reactor power greater than 10%, enabling the low power permissive's reactor trips. An investigation determined that the reactor trip logic was completed by a turbine trip signal generated by indication of closed turbine stop valves. Although the turbine stop valves (TSV) were in an open position, the RPS indicated they were closed due to the presence of lifted leads in the TSVs' position sensing circuitry. An investigation is being conducted to establish the root cause of the event and the corrective actions to prevent recurrence. Upon identification, the root cause and corrective actions to prevent reoccurrence will be issued in a Supplemental Licensee Event Report. As an immediate action the leads were landed to provide a signal to the RPS indicating the TSV's position.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

TEXT (If more space is required, use additional NRC Form 306A's) (17)

EVENT

On May 5, 1989, at 0152, with Unit 4 in Mode 3 (Hot Standby), a Reactor Protection System (RPS) (EIIS:JC) actuation occurred while performing procedure 4-SMI-071.4, "Steam Generator Protection Set III Analog Channel Test." At the time of occurrence, control banks C and D were withdrawn for rod drop testing in accordance with procedure 4-PMI-028.3, "RPI Hot Calibration, CRDM Stepping Test, and Rod Drop Test." The reactor tripped when Instrumentation and Control personnel (non-licensed utility personnel) placed bistable BS-4-446-1 in the Test position in accordance with step 6.2.3.1 of procedure 4-SMI-071.4: All systems functioned as designed, and Unit 4 remained stable in Mode 3 throughout the event. An investigation is being conducted to determine the root cause(s) of the incident and establish the corrective actions to prevent recurrence.

Placing BS-4-446-1 in the Test position simulated a reactor power greater than 10%, enabling the RPS low power permissive's (P-7) reactor trips; thus, one-half of the reactor trip logic was provided. A subsequent investigation determined that the coincident half of the reactor trip logic was provided by a turbine trip signal due to the presence of lifted leads in the turbine stop valve position sensing circuitry. The lifted leads prevented the RPS from receiving a signal indicating the turbine stop valves (EIIS:TA) were open. The turbine stop valves were verified to be in an open position.

CAUSE OF EVENT

Our investigation into the event has not established the root cause of the event as of issuance of this report. A Supplemental Licensee Event Report will be issued to document the root cause(s) and corrective actions to prevent recurrence.

ANALYSIS OF EVENT

A post-trip review was conducted to assess the proper operation of safety-related equipment. The review established that no thermodynamic response to the trip occurred and that plant parameters responded as expected. Other than the automatic initiation of the reactor trip, there were no manual or automatic reactor protection system or engineered safety features actuations. Although the lifted leads prevented the RPS from receiving a true indication of the turbine stop valves position, the RPS was in the fail safe position indicating the turbine stop valves were closed. Based on the above, the health and safety of the public were not affected.

CORRECTIVE ACTIONS

- 1) The lifted leads for the turbine stop valves' position sensing circuitry

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		8 9	— 0 0 3	— 0 0	0 3	OF	0 3

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

were landed on May 5, 1989.

- 2) An investigation is being conducted to establish the root cause(s) of the event and the corrective actions to prevent reoccurrence. A Supplemental Licensee Event Report will be issued to document the root cause(s) of the event and the corrective actions to prevent reoccurrence.

ADDITIONAL INFORMATION

Similar occurrences: LER 250-89-004 describes a reactor trip due to a defective procedure during performance of OP 14004.1 (the old procedure including the Steam Generator Protection Set III Analog Channel Test), LER 251-88-010 delineates a reactor trip due to personnel error during the performance of OP 14004.1, and LER 250-86-030 describes a reactor trip and safety injection due to inadequate planning of post-maintenance testing associated with OP 14004.1.



