NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

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

TITLE (4)
Engineered Safety Feature Actuation - Reactor Trip

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)
1 2	1 3	8 4	8 4	- 0 3 3	- 0 0	0 1	1 4	8 5	N/A	0 5 0 0 0
									N/A	0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	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)(viii)(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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Randall D. Hart, Licensing Engineer	AREA CODE 3 0 5 2 4 5 - 2 9 1 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

Event:

On December 13, 1984, while Unit 3 was at 100% power, a reactor trip occurred. A fault in the exciter caused a loss of generator field and a generator trip. The generator trip caused a turbine trip which resulted in a reactor trip. All equipment functioned as designed upon actuation of the Engineered Safety Feature Actuation Signal.

Cause of Event:

An investigation revealed that the fault in the exciter was caused by a shorting of the DC (negative wheel) to the AC side of the exciter rotor.

Corrective Actions:

Immediate corrective actions included the following:

1) Stabilize the unit and then proceed to cold shutdown conditions due to the "A" emergency diesel generator being out of service for periodic maintenance.

2) Investigation of exciter malfunction, determining the extent of the damage and effecting repairs.

Significant event notification was made to the NRCOC via ENS pursuant to 10 CFR 50.72(b)(2)(ii). The health and safety of the public were not affected. Similar occurrences: None.

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

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

Event

On December 13, 1984, at 12:19 a.m., while Unit 3 was at 100% power, a reactor trip occurred. A fault in the exciter actuated the "loss of field" relay as it sensed a loss of generator field due to the exciter failure. The "loss of field" resulted in a generator trip, followed by a turbine trip, and subsequent reactor trip.

Cause of Event

An investigation revealed that the fault itself was a shorting of the DC (negative wheel) to the AC side of the exciter rotor. The fault resulted in extensive damage to all negative diode wheel components, considerable melting of about two-thirds of all heat sinks and some structural damage to the diode wheel itself. Also, several rotor coils were observed to have blown insulation. The amount of damage was limited because of the "loss of field" relay actuation that de-energized the fault.

This event was generated and damage limited to the secondary portion of the plant. Primary systems functioned properly during this event. The health and safety of the public were not affected.

Corrective Actions

The unit was stabilized and then proceeded to cold shutdown conditions because the "A" emergency diesel was out of service for periodic maintenance. A spare exciter was delivered to the site. The damaged exciter rotor was replaced with the rotor from the spare exciter and all other damage was repaired. During this repair, Westinghouse and FPL personnel inspected the Unit 3 generator and found no significant problems. The Unit 4 generator will be similarly inspected during the next outage of sufficient duration.

The unit was placed on line on January 2, 1985, at 9:02 p.m., and achieved full power on January 3, 1985, at 8:05 a.m.

FPL

FLORIDA POWER & LIGHT COMPANY

January 14 , 1985
L-85-21

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

Gentlemen:

Re: Reportable Event 84-33
Turkey Point Unit 3
Date of Event: December 13, 1984
Engineered Safety Feature Actuation-Reactor Trip

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR to provide notification of tne subject event.

Very truly yours,

J. W. Williams, Jr.
Group Vice President
Nuclear Energy

JWW/PLP/js

Attachment

cc: J. P. O'Reilly, Region II, USNRC
Harold F. Reis, Esquire
File 933.1
PNS-LI-85-019-1

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