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ACCESSION NBR: 8908010387 DOC. DATE: 89/07/26 NOTARIZED: NO DOCKET #
 FACIL: 50-389 St. Lucie Plant, Unit 2, Florida Power & Light Co. 05000389
 AUTH. NAME AUTHOR AFFILIATION
 MCLAUGHLIN, L.L. Florida Power & Light Co.
 WOODY, C.O. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-005-00: on 890626, loss of load reactor trip on high steam generator level due to personnel error. W/8 ltr.

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 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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JULY 26 1989

L-89-272
10 CFR 50.73

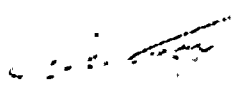
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Re: St. Lucie Unit 2
Docket No. 50-389
Reportable Event: 89-05
Date of Event: June 26, 1989
Loss of Load Reactor Trip on High Steam
Generator Level due to Personnel Error

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
Acting Senior Vice President - Nuclear

COW/JRH/cm

Attachment

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

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) ST. Lucie, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 8 9	PAGE (3) 1 OF 0 3
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TITLE (4) **LOSS OF LOAD REACTOR TRIP ON HIGH STEAM GENERATOR LEVEL DUE TO PERSONNEL ERROR**

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	6	2	8	9	0	0	7	2			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 2, 2	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(e)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.406(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"/> 20.406(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 368A)						
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)							
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(a)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)							
	<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)							

LICENSEE CONTACT FOR THIS LER (12)

NAME L. L. McLaughlin, Supervising Engineer	TELEPHONE NUMBER
	AREA CODE: 4 0 7 NUMBER: 4 6 5 - 3 5 5 0

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

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO
EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR

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

On June 26, 1989 at 2347 hours, St. Lucie Unit 2 reactor tripped on loss of load from 22% power during turbine startup. The loss of load reactor trip was a result of a turbine trip due to high steam generator level in the 2A steam generator. The trip was uncomplicated and the unit was quickly stabilized in Mode 3, Hot Standby.

The root cause of the event was cognitive personnel error by utility-licensed operators due to less than adequate communication between the shift crew performing the turbine startup evolution.

The utility-licensed operators were counseled on the need for well controlled evolutions, in which good communication is of the utmost importance by all participants, as a short term corrective action. The plant training group will evaluate this event to determine appropriate training requirements and methods.

LICENSE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) St. Lucie, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 8 9	LER NUMBER (6)			PAGE (3)		
		YEAR 8 9	SEQUENTIAL NUMBER 0 0 5	REVISION NUMBER 0 0			

TEXT (If more space is required, use additional NRC Form 303A's) (17)

DESCRIPTION OF EVENT

On June 26, 1989, St. Lucie Unit 2 was in Mode 1 with reactor power at 5%. The Unit was preparing to synchronize the main turbine generator (EIIS:TB) to the grid. At 2335 hours, the main generator output breakers were closed and the main generator was synchronized to the grid. The reactor control operator at the turbine controls manually entered a load rate of 50 MW per minute to minimize the possibility of a main generator secondary lockout on anti-motoring protection circuit. The high turbine load rate resulted in a drop in primary system average temperature. The Assistant Nuclear Plant Supervisor noted the problem and instructed that the turbine load rate be reduced to 25 MW per minute. Turbine loading was stopped to help stabilize the plant. Control element assemblies (CEAs) (EIIS:AA) were withdrawn to raise primary coolant temperatures to offset the rapid drop in temperature due to the turbine load rate. Reactor power increased from approximately 11% to 22% over a short period of time. At this point, the control room operators were unable to compensate for the primary and secondary power mismatch. With primary coolant system temperature increasing, the steam generator levels swelled. At 2347, the turbine tripped on high level on the 2A S/G and the reactor tripped on loss of load due to the turbine trip. The Standard Post Trip Actions were performed and the unit was stabilized in Mode 3, Hot Standby.

The trip was an uncomplicated reactor trip and all systems functioned normally.

CAUSE OF EVENT

The cause of the event was cognitive personnel error by utility-licensed operators due to less than adequate communication between the shift crew performing the turbine startup evolution. The operator at the reactor controls did not adequately convey the magnitude of the CEA withdrawal to the other operators at the steam generator level control station and the turbine control station. The turbine startup evolution was performed under the guidance of an approved plant procedure when the error occurred. There were no unusual characteristics of the work location that directly contributed to the personnel error.

FACILITY NAME (1) St. Lucie, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 8 9 8 9	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		—	0 0 5	— 0 0	0 3	OF	0 3

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

ANALYSIS OF EVENT

The event is reportable under 10 CFR 50.73 (a)(2)(iv), "any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature, including the Reactor Protection System."

The event was observed to be an uncomplicated reactor trip on loss of load. The loss of load reactor trip is for equipment protection and is not required for reactor safety. The resulting transient was well enveloped by the St. Lucie Unit #2 Final Updated Safety Analysis Report section 15.2.1.2 "Limiting Reactor Coolant System Pressure Event-Isolation of Turbine (100% power)." All plant safety functions were met and there were no additional complications. Consequently, the health and safety of the public were not affected by this event.

CORRECTIVE ACTIONS

1. The utility-licensed operators were counseled on the need for well controlled evolutions, in which good communication is of the utmost importance by all participants.
2. The plant training group will evaluate this event to determine appropriate training requirements and methods.

ADDITIONAL INFORMATION

FAILED COMPONENT INFORMATION:

There were no failed components during this event.

PREVIOUS SIMILAR EVENTS:

For similar events involving reactor trips on loss of load due to high steam generator level, see Licensee Events Reports:

335-86-004
389-85-004