Florida Power & Light Company, 6501 South Ocean Drive, Jensen Beach, FL 34957

May 22, 2001

L-2001-123
10 CFR § 50.73

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

Re: St. Lucie Unit 1
Docket No. 50-335
Reportable Event: 2001-002-00
Date of Event: April 3, 2001
Technical Specification Minimum Shut Down
Cooling Loop Operation Requirement Violation

The attached Licensee Event Report 2001-002 is being submitted pursuant to the requirements of 10 CFR § 50.73 to provide notification of the subject event.

Very truly yours,

Rajiv S. Kundalkar
Vice President
St. Lucie Nuclear Plant

RSK/EJW/KWF
Attachment

cc: Regional Administrator, USNRC, Region II
Senior Resident Inspector, USNRC, St. Lucie Nuclear Plant

IE22

NRC FORM 366 (1-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 6-30-2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

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TITLE (4)

Technical Specification Minimum Shut Down Cooling Loop Operation Requirement Violation

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
04	03	2001	2001	- 002 -	00	05	22	2001	FACILITY NAME	DOCKET NUMBER

		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
OPERATING MODE (9)	4		20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)
POWER LEVEL (10)	000		20.2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)
			20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)
			20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)
			20.2203(a)(2)(ii)		50.36(c)(2)		50.73(a)(2)(v)(B)		OTHER
			20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)		
			20.2203(a)(2)(v)	X	50.73(a)(2)(i)(B)		50.73(a)(2)(vii)		
			20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)		
			20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Kenneth W. Frehafer, Licensing Engineer	(561) 467 - 7748

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
A	BP	N/A	N/A	N/A	-	-	-	-	-

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 15 single-spaced typewritten lines)* **(16)**

On April 3, 2001 St. Lucie Unit 1 was shutdown in Mode 4 operations during the beginning of the SL1-17 refueling outage. At 0440 hours the 1A and 1B shutdown cooling loops were removed from service when at the same time both the 1A1 and 1A2 reactor coolant pumps were out of service. This left only one cooling loop (i.e., the "B" reactor coolant loop) operable and in operation. Technical Specification 3.4.1.3 requires two operable cooling loops with one loop in operation. At 0645 hours when control room personnel identified this configuration actions were immediately initiated to restore the minimum required cooling loops to service. The 1A1 reactor coolant pump was restored to operable status at 1036 and the action statement for Technical Specification 3.4.1.3 was exited. Both the 1B1 and the 1B2 reactor coolant pumps remained in service during the event.

The cause of this event was a personnel error that authorized the implementation of an equipment clearance order that removed both of the shutdown cooling loops when the "A" reactor coolant loop was out of service. Procedure changes are planned to strengthen the clearance order process to preclude recurrence to this event.

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

Description of the Event

On April 3, 2001 St. Lucie Unit 1 was shutdown in Mode 4 operations during the beginning of the SL1-17 refueling outage. At 0440 hours both the 1A and 1B shutdown cooling (SDC) loops [EIIS:BP] were removed from service to repair relief valve, V3483. The 1A1 and 1A2 reactor coolant pumps (RCPs) were also inoperable at this time, leaving only one reactor coolant loop operable and in operation. At 0645 hours, control room personnel identified this plant configuration and immediately initiated actions to restore the minimum required loops to operable status in accordance with the action statement for specification 3.4.1.3.A. The 1A1 RCP was restored to service at 1036 and the action statement for Technical Specification 3.4.1.3 was exited. Both the 1B1 and the 1B2 RCPs remained in service during the entire event.

Cause of the Event

The cause of this event was a personnel error on the part of control room supervision that authorized the implementation of an equipment clearance order that removed both of the shutdown cooling loops from service at the same time the "A" RCS loop was out of service.

There were several contributing factors to this event. The teamwork, communications, and peer checking that is relied upon to provide defense in depth was not effective between the control room and clearance center. Additional contributors to this event were the failure to properly enter out of service equipment in the chronological log and the equipment out of service (EOOS) log. Entries into these logs may have prompted one of the involved SROs to become aware of the technical specification implications of the planned evolutions.

Analysis of the Event

This event is reportable under 10 CFR 50.73(a)(2)(i)(B) as "Any operation or condition prohibited by the plant's Technical Specifications..." Contrary to the requirements of Technical Specification 3.4.1.3, St. Lucie Unit 1 inadvertently entered a condition where less than the required minimum RCS heat removal loops were operable and did not initiate actions to correct that condition within the allowed outage time.

Analysis of Safety Significance

At 0745 hours on April 2, 2001, the 1A1 RCP was removed from service. At 1445 hours, the 1A2 RCP was secured and later removed from service. Later that same day, during an attempt to place the 1A SDC loop in service, the hot leg suction relief valve, V3483, lifted causing an unplanned loss of reactor coolant. Emergent plans were initiated to remove the relief valve and repair or replace it as needed. To safely clear the valve for maintenance, both trains of SDC had to be removed from service. Mode 4 was entered at 1510 hours on April 2, 2001, at which time Technical Specification 3.4.1.3 became applicable. At 0440 hours on April 3, 2001, the 1A and 1B SDC loops were entered in the out of service log in preparation of hanging the emergent equipment clearance order (ECO) 04-007. At 0446, the clearance for the SDC system was initiated and the "A" and "B" SDC loops became administratively inoperable. In fact, the "B" SDC loop remained immediately available for use until 0552 when the breaker for V3651 was placed in the OFF position and an ECO tag was affixed. At 0645 when it was realized that both SDC loops were disabled and only one

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

RCS loop was in service, actions were taken to restore the minimum required cooling loops. At 1036 hours on April 3, 2001, the 1A1 RCP was placed back in service restoring an additional RCS coolant loop to operable status. Throughout this event both the 1B1 and the 1B2 RCPs and associated steam generator remained in service. Therefore, this event had no adverse impact on the health and safety of the public.

FPL addressed the potential generic implications (e.g., inadequate communication and coordination) by the corrective actions planned and put in place and the discussions that occurred during the operations stand down meetings that specifically focused on preventing additional events of this nature.

Corrective Actions

1. The 1A1 RCP was expeditiously returned to service to satisfy the requirements to have two operable heat removal loops.
2. Interim corrective actions were implemented, including Operations personnel turnover reviews of the stand down issues document that described this event; issuance of a night order that listed expectations for smooth and successful communications between the control room, EOOS coordinators, and clearance center personnel with regard to EOOS issues; and the development of a standard to accurately document, track and delineate responsibility when Technical Specification equipment is removed from service for the remainder of SL1-17 refueling outage.
3. The guidance that was developed for the SL1-17 refueling outage with regard to EOOS tracking will be incorporated in appropriate plant procedures such as ADM 09.08 "In-plant Equipment Clearance Orders" and 0-NOP-100.01 "Equipment Out Of Service."

Additional Information

Failed Components Identified

None

Similar Events

None