

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9104180017    DOC. DATE: 91/04/05    NOTARIZED: NO    DOCKET # 05000335  
 FACIL: 50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co.  
 AUTH. NAME                      AUTHOR AFFILIATION  
 LAUVER, C.                      Florida Power & Light Co.  
 SAGER, D.A.                     Florida Power & Light Co.  
 RECIP. NAME                    RECIPIENT AFFILIATION

SUBJECT: LER 90-010-00: on 900720, erroneous low temp overprotection (LTOP) setpoint put in place & unit entered Mode 3 on 900805. Caused by personnel error & failure to utilize design control process. Setpoints changed. W/910405 ltr.

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

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APR 05 1991

L-91-102  
10 CFR 50.73

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

Gentlemen:

Re: St. Lucie Unit 1  
Docket No. 50-335  
Reportable Event: 90-10  
Date of Event: July 20, 1990  
Low Temperature Overpressure Protection Setpoint Below  
Technical Specification Limit 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,

*DA Sager*  
D. A. Sager  
Vice President  
St. Lucie Plant

DAS:GRM:kw

Attachment

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

DAS/PSL #399

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*IE22*

# LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>St. Lucie Unit 1</b>	DOCKET NUMBER (2) <b>051010335</b>	PAGE (3) <b>1 OF 04</b>
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TITLE (4) **Low Temperature Overpressure Protection Setpoint Below Technical Specification Limit 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)
07	20	90	90	010	00	04	05	91	N/A		01510101
									N/A		01510101

OPERATING MODE (9) <b>5</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR : (Check one or more of the following) (11)				
POWER LEVEL (10) <b>0</b>	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)	OTHER (Specify in Abstract below and in Text NRC Form 366A)
	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)		
	20.405(a)(1)(iii)	X	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 <b>Catherine Lauver, Shift Technical Advisor</b>	TELEPHONE NUMBER AREA CODE <b>407465-3550</b>

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) <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15) MONTH: <b> </b> DAY: <b> </b> YEAR: <b> </b>
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ABSTRACT (Limit to 1400 spaces. i.e. approximately fifteen single-space typewritten lines) (16)

On June 11, 1990 St. Lucie Unit 1 received Amendment 104 to the Technical Specifications (TS) which changed the setpoints required for Low Temperature Overpressure Protection (LTOP) to be operable (TS 3.4.13). On July 19, 1990 a meeting of the Facility Review Group (FRG) was held concerning procedural incorporation of the new setpoints. One member suggested additional changes, and these changes were added to the submitted documents and approved.

One change was to lower the setpoint of TA-1115 relay 2 and TA-1125 relay 2, from the 1A1 and 1B1 Reactor Coolant System cold legs, from the submitted value of 307°F to 298°F. These relays are required to open the Power Operated Relief Valves when pressure is greater than 530 psia and temperature is less than 304°F. As a result, LTOP protection was not available for the band of 298°F to 304°F with pressure greater than 530 psia.

TS 3.4.13 is applicable in Modes 4 and 5 only. Unit 1 was in Mode 5 at the time the setpoints were changed on July 20, 1990, and entered Mode 3 on August 5, 1990. The error was noticed in March of 1991, when a training instructor preparing lessons noticed inconsistencies in plant procedures.

The root cause of the event is cognizant personnel error, in that by recommending and approving additional changes to submitted material, the FRG unintentionally chose the nonconservative course of action.

Corrective actions include: correcting the procedures, changing the setpoints, changing Engineering procedures, and reviewing the event with FRG members and alternate members.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  St. Lucie Unit 1	DOCKET NUMBER (2)  05000335	LER NUMBER (6)				PAGE (3)	
		YEAR 90	SEQUENTIAL NUMBER 010	REVISION NUMBER 00			
							02 OF 04

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

DESCRIPTION OF THE EVENT

On June 11, 1990 St. Lucie Unit 1 received Amendment 104 to the Technical Specifications (TS), which changed TS 3.4.13, Power Operated Relief Valves (PORVs)(EISS:AB). The amendment changed the setpoints required for Low Temperature Overpressure Protection (LTOP)(EISS:JC) to be operable.

On July 2, 1990, Unit 1 entered Mode 4 to replace a Reactor Coolant Pump (EISS:AB) seal. Since TS 3.4.13 is applicable in Modes 4 and 5, the Unit would not be permitted to restart until the new setpoints were in place. On July 19, 1990 a meeting of the Facility Review Group (FRG) was held concerning the new setpoints.

While the FRG was considering the submitted procedural changes, one member suggested additional procedure changes resulting from Amendment 104 to TS 3.4.13. One of the changes concerned the setpoint for TA-1115 relay 2 and TA-1125 relay 2. These relays open the PORVs when Reactor Coolant System temperature in cold legs 1A1 and 1B1, respectively, is below 304°F and Reactor Coolant System (RCS)(EISS:AB) pressure is greater than 530 psia. The submitted setpoint was 307°F, which is 3° F conservative. The FRG changed this value to 298°F, incorrectly believing this was conservative.

The erroneous setpoint was put in place on July 20, 1990. The unit entered Mode 3 at 2145, August 5, 1990 and TS 3.4.13 is applicable in Modes 4 and 5 only. The error was discovered in March of 1991, when a training instructor who was preparing to teach LTOP material noticed inconsistencies in plant procedures.

CAUSE OF THE EVENT

The subject procedure changes were correct when submitted to FRG. The cause of the event is cognitive personnel error by utility supervisory personnel, in that by making additional changes to submitted material, the FRG members unintentionally chose the nonconservative course of action, which is contrary to an approved plant procedure. There were no unusual characteristics of the work location that directly contributed to the error.

A contributing factor is that FPL Engineering did not utilize an existing design control process for plant changes involving Technical Specification setpoints.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

ANALYSIS OF THE EVENT

Amendment 104 changed the Pressure/Temperature limit curves for Heatup and Core Critical, Cooldown and Inservice Testing, and Maximum Allowable Cooldown Rates, and the LTOP setpoints which are based on these curves. The change was for operation up to 15 Effective Full Power Years (EFPY). The previous values were covered by analysis for up to 10 EFPY. Unit 1 reached 10 EFPY on September 11, 1990. Since the period of time that the unit was out of compliance with TS 3.4.13 was July 20 through August 5, 1990, and the setpoints in place at that time were acceptable for operation up to 10 EFPY, the LTOP system was at all times able to perform its intended safety function. The health and safety of the public were not at risk at any time during this period.

This event is reportable per 10 CRF 50.73.a.2.i.B, any operation and condition prohibited by Technical Specifications.

CORRECTIVE ACTIONS

1. I&C procedures 1-1200054, "LTOP Functional Test," and 1-1400064T, "Installed Plant Instrumentation Calibration (Temperature)," were changed March 8, 1991 to reflect the correct setpoint values.
2. The setpoints will be changed prior to entry into Mode 4.
3. FPL Engineering will change their procedures to ensure followup with a Plant Change/Modification which will contain setpoint and drawing changes, when appropriate, when performing a Proposed License Amendment evaluation. This will be completed by October 18, 1991.
4. A detailed summary of this event will be reviewed by all St. Lucie FRG members and alternate members to reinforce the lessons learned by April 30, 1991.
5. Unit 2 LTOP setpoints were verified to be correct.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

ADDITIONAL INFORMATION

Failed Component Identification:

None

Previous Similar Events:

There have been no previous Licensee Event Reports written at St. Lucie Plant that discuss errors made by the Facility Review Group.