

## ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9008150276 DOC.DATE: 90/08/10 NOTARIZED: NO DOCKET #  
 FACIL:50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251  
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 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 90-007-00:on 900726,automatic start of 4A CCW pump due  
 to low CCW pump discharge header pressure.

W/9 ltr.

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

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	NRR/DET/ECMB 9H	1 1	NRR/DET/EMEB9H3	1 1
	NRR/DLPQ/LHFB11	1 1	NRR/DLPQ/LPEB10	1 1
	NRR/DOEA/OEAB11	1 1	NRR/DREP/PRPB11	2 2
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FPL

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

AUG 10 1990

L-90-293  
10 CFR 50.73

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

Gentlemen:

Re: Turkey Point Unit 4  
Docket No. 50-251  
Reportable Event: 90-007  
Date of Event: July 26, 1990  
Automatic Start of the 4A Component Cooling Water  
(CCW) Pump Due to Low CCW Pump Discharge Header  
Pressure

The attached Licensee Event Report is being provided pursuant to the requirements of 10CFR50.73 as notification of the subject event.

Very truly yours,

K. N. Harris  
Vice President  
Turkey Point Nuclear Plant

KNH/DRP/dwh

Attachment

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

C

9008150276 900810  
PDR ADOCK 05000251  
S PDC



## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Turkey Point Unit 4										DOCKET NUMBER (2) 0 5 0 0 0 2 5 1 1 OF 0 4										PAGE (3) 1 OF 0 4			
TITLE (4) Automatic Start of the 4A Component Cooling Water (CCW) Pump Due to Low CCW Pump Discharge Header Pressure																							
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 N/A					DOCKET NUMBER(S) 0 5 0 0 0 0									
0	7	2	6	9	0	9	0	0	0	7	0	0	0	8	1	0	9	0	0	5	0	0	0
OPERATING MODE (9) 5		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																					
POWER LEVEL (10) 1 1 0 1 0		20.402(b)				20.406(e)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)									
		20.406(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)									
		20.406(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 308A)									
		20.406(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vii)(A)													
		20.406(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)													
		20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME David R. Powell, Licensing Superintendent																TELEPHONE NUMBER 3 0 5 2 4 6 - 6 5 5 9							
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)																EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR			
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)																<input checked="" type="checkbox"/> NO							

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (18)

At 1228, on July 26, 1990, with Unit 4 in Mode 5 (Cold Shutdown), the 4A Component Cooling Water (CCW) pump automatically started. Prior to this event, the 4C CCW pump was operating and the 4B CCW heat exchanger was out of service for cleaning. At approximately 1155, the 4B CCW pump was started in preparation for returning the 4B CCW heat exchanger to service and taking the 4C CCW heat exchanger out of service for cleaning. After swapping the CCW heat exchangers, the 4B CCW pump was stopped. A low CCW pump discharge header pressure condition was sensed by pressure controller PC-4-611 and the 4A CCW pump automatically started within 5 seconds, as designed. The cause for this event was cognitive error made by a non-licensed utility person. A contributing factor was inadequate administrative controls. On January 6, 1988, the low pressure setpoint for PC-\*-611 was changed from 75.0 psig +/- 1.5 psig to 60.0 psig +/- 1.5 psig. On January 19, 1988, PC-3-611 and PC-4-611 were calibrated to the new setpoint. However, the master instrument calibration data sheets were not revised to reflect the new setpoint or attached to the Plant Work Orders physically changing the instrument setpoints. PC-4-611 has been calibrated to 60 psig +/- 1.5 psig. PC-\*-611 instrument calibration data sheets have been revised to reflect a low pressure setpoint of 60.0 psig +/- 1.5 psig.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Turkey Point Unit 4	0 5 0 0 0 2 5 1 9 0 - 0 0 7 - 0 0 0 2 OF 0 4						

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

DESCRIPTION OF THE EVENT

At 1228, on July 26, 1990, with Unit 4 in Mode 5 (Cold Shutdown), the 4A Component Cooling Water (CCW) pump (EIIS:CC, Component:P) automatically started within 5 seconds of pressure controller PC-4-611 (EIIS:CC, Component:PC) sensing a low CCW pump discharge header pressure condition. The 4C CCW pump continued to operate during this event.

Prior to this event, the CCW System was aligned for single pump operation. The 4C CCW pump was operating and the 4B CCW heat exchanger was out of service for cleaning. At approximately 1155, the 4B CCW pump was started in preparation for returning the 4B CCW heat exchanger to service and taking the 4C CCW heat exchanger out of service for cleaning. After swapping the CCW heat exchangers, the 4B CCW pump was stopped. A low CCW pump discharge header pressure condition was sensed by PC-4-611 and the 4A CCW pump automatically started within 5 seconds, as designed.

At 1357, on July 26, 1990, FPL notified the NRC Operations Center of a significant event in accordance with 10CFR50.72(b)(2)(ii) as an automatic actuation of an Engineered Safety Feature (ESF).

CAUSE OF THE EVENT

The cause for this event was cognitive error made by a non-licensed utility person. A contributing factor was inadequate administrative controls to ensure that revised setpoints were incorporated into instrument calibration data sheets.

On January 6, 1988, the setpoints for PC-\*-611 were changed from 75.0 psig +/- 1.5 psig to 60.0 psig +/- 1.5 psig in accordance with Administrative Procedure AP 0140.2, "Changing Setpoints," which required a 10CFR50.59 safety evaluation and subsequent review by the Plant Nuclear Safety Committee (PNSC). This setpoint change was deemed necessary to prevent nuisance automatic starts of the standby CCW pump(s) due to flow transients when switching from two pump to one pump operation. Single pump operation results in CCW pump discharge header pressures close to 75.0 psig.

On January 19, 1988, PC-3-611 and PC-4-611 were recalibrated to 60.0 psig +/- 1.5 psig. Calibration of these pressure controllers was performed under a Plant Work Order (PWO), using the setpoint change package as guidance. The master instrument



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

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EXPIRES: 8/31/88

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER				
Turkey Point Unit 4	0   5   0   0   0   2   5   1	9   0	-   0   0   7	-   0   0	0   3	OF	0   4	

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

calibration data sheet for PC-\*-611 should have been revised to reflect the new low pressure set point and attached to the PWOs at this time. This administrative task was not performed.

During the Unit 4 Cycle 12 refueling outage, PC-4-611 had to be moved due to mechanical interference with the CCW heat exchanger tube bundle replacement. Upon reinstallation, PC-4-611 was calibrated to 75.0 psig +/- 1.5 psig using the instrument calibration data sheet as guidance.

Troubleshooting performed on PC-4-611 as a result of this automatic 4A CCW pump start determined that the instrument low pressure alarm setpoint was within specifications. However, a post-work review of the PWO identified that the wrong low pressure setpoint was specified on the instrument calibration data sheet. The as-found setpoint of PC-4-611 was 75.5 psig.

#### ANALYSIS OF THE EVENT

Low CCW pump discharge header pressure is controlled by pressure controller PC-4-611 which is located at the inlet to the 4B CCW heat exchanger. PC-4-611 is provided with a low pressure alarm which is annunciated in the Control Room and is used to start the standby CCW pump(s) upon reaching a low CCW pump discharge header pressure setpoint. The Design Basis Document (DBD) for the CCW System states that PC-\*-611 does not perform a safety function. Only one CCW pump and two CCW heat exchangers are required to mitigate the consequences of a maximum hypothetical accident (MHA).

The Unit 4 CCW pumps remained operable and the 4C CCW pump continued to operate during this event. Upon automatic starting of the 4A CCW pump, the CCW pump discharge header pressure increased above 75.0 psig.

#### CORRECTIVE ACTIONS

1. PC-4-611 was recalibrated to 60.0 psig +/- 1.5 psig.
2. PC-3-611 was found to be set at approximately 63.5 psig and was recalibrated to 60.0 psig +/- 1.5 psig.
3. The instrument calibration data sheets for PC-\*-611 have been revised to specify a low pressure setpoint of 60.0 psig +/- 1.5 psig.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Turkey Point Unit 4	0 5 0 0 0 2 5 1	9 0	— 0 0 7	— 0 0	0 4	OF	0 4

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

4. Setpoint change documents will be verified against instrument calibration data sheets. Identified discrepant conditions will be evaluated and resolved. This task will be completed by September 28, 1990.
5. Maintenance Instruction (MI) 102-114, "Maintenance Instruction On The Spot Change (MICHANGE) Preparation, Review, and Approval Form," has been revised to include provisions for changing instrument calibration data sheets based on information contained in a Plant Change or Modification (PC/M).
6. An On-The-Spot-Change has been generated to Administrative Procedure 0-ADM-701, "Plant Work Order Preparation." This change requires instrument calibration data sheets to be verified and attached to PWOs that involve instrument calibrations or calibration checks.

ADDITIONAL INFORMATION

A similar event was reported in Licensee Event Report (LER) 50-251/90-006. At the time of the event, PC-4-611 was believed to be set at 60.0 psig +/- 1.5 psig. FPL believes the CCW pump discharge header pressure would have decreased below 60 psig during the sequence of events described therein. Discovery that PC-4-611 was set at 75.0 psig +/- 1.5 psig does not change the root cause or corrective actions contained in LER 50-251/90-006.

