

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8812200203 DOC. DATE: 88/12/14 NOTARIZED: NO DOCKET #  
 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250  
 AUTH. NAME: AUTHOR AFFILIATION  
 GROSS, K.W. Florida Power & Light Co.  
 CONWAY, W.F. Florida Power & Light Co.  
 RECIP. NAME: RECIPIENT AFFILIATION

SUBJECT: LER 88-028-00: on 881117, CRVS realignment to recirc mode during post-maint testing due incomplete calibr method.

W/8 ltr.

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## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Turkey Point Unit 3												DOCKET NUMBER (2) 0 5 0 0 0 2 5 0				PAGE (3) 1 OF 0 3		
TITLE (4) Control Room Ventilation System Realignment to Recirculation Mode During Post Maintenance Testing Due to Incomplete Calibration Method																		
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)					
11	17	88	88	028	00	01	14	88	Turkey Point Unit 4				0 5 0 0 0 2 5 1					
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) 0 0 0			20.402(b)				20.406(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)			
			20.406(a)(1)(i)				50.38(c)(1)				50.73(a)(2)(v)				73.71(c)			
			20.406(a)(1)(ii)				50.38(c)(2)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
			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)(vii)(B)							
			20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)							
LICENSEE CONTACT FOR THIS LER (12)																		
NAME Karl W. Gross, Compliance Engineer												TELEPHONE NUMBER AREA CODE 3 0 5 2 4 6 - 6 7 4 9						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																		
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On November 17, 1988 at 1721 with Unit 3 in Cold Shutdown and Unit 4 defueled, the Control Room Ventilation System (CRVS) shifted to the recirculation mode while conducting a test of the Channel B Air Intake Radiation Monitor, RAI 6642. This occurred during performance of a post maintenance channel check performed following troubleshooting of the radiation monitor. The bypass signal limits were exceeded and when the Reactor Control Operator placed the control switch in the check source position, the monitor initiated a false high radiation signal. This resulted in the CRVS automatically shifting to the recirculation mode, as designed. Following the actuation, the CRVS remained in recirculation mode until the A channel was tested in accordance with plant procedures. An investigation determined that calibration performed during troubleshooting on the monitor had not properly adjusted the monitor sensitivity due to omission of a source calibration. Had a source calibration been performed, the actuation would have been prevented. The work instructions are being revised to require calibration using a radioactive source or an improved means of electronically simulating detector output to assure proper sensitivity adjustment.

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## 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 3	0 5 0 0 0 2 5 0	8 8	0 2 8	0 0	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Description of the Event

On November 17, 1988, at 1721, with Unit 3 in Cold Shutdown (mode 5), and Unit 4 defueled, the Control Room Ventilation System (CRVS, EIIS System Code IV) shifted to the recirculation mode during conduct of a channel check of the Channel B Air Intake Radiation Monitor, RAI 6642 (EIIS System Code IL).

The radiation monitor had been removed from service for troubleshooting, and following recalibration using an electronic signal, a channel check was performed. The actuation occurred when the Reactor Control Operator (RCO, licensed utility employee) placed the control switch for RAI 6642 in the check source position. This causes an internal electronic signal to be generated which should bypass the trip function of the monitor. With the control switch in the check source position, the bypass circuitry limits were exceeded and the monitor initiated a false high radiation signal. This resulted in the CRVS automatically shifting to the recirculation mode, as designed.

The radiation monitor module which appeared to have failed was replaced, however the replacement exhibited the same response. An investigation was conducted and determined that use of an electronically simulated radiation detector signal for calibration led to too high of a system sensitivity, and the subsequent actuation. The calibration procedure normally includes a source calibration following the electronic calibration, however for the purpose of troubleshooting, the source calibration was omitted during this evolution. This resulted in the sensitivity remaining at a higher than appropriate level, and the subsequent actuation during post maintenance testing.

Cause of the Event

The cause of the actuation of the CRVS recirculation mode was inadequate work instructions in that an incomplete method of performing calibration of the radiation monitor was used. The use of an electronic calibration, without a subsequent source calibration, led to increased sensitivity of the monitor following maintenance. The actuation occurred due to this inappropriately high sensitivity.

Analysis

Upon receipt of the spurious signal, the CRVS shifted to the recirculation mode as designed. It remained in the recirculation mode operating within its design limits until the redundant A channel was tested in accordance with plant procedures. Based on the above, the health and safety of the public was not affected.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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Turkey Point Unit 3	0 5 0 0 0 2 5 0	8 8	0 2 8	0 0	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 305A's) (17)

Corrective Action

The work instruction was revised to include the use of source checks or improved electronic simulation of actual monitor signals to assure appropriate sensitivity during calibrations. This change was made by an On-The-Spot-Change to the procedure on December 10, 1988.

Additional Information

No similar events have been identified.

Equipment manufacturer: General Atomics, model RP-1A



FPL

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

DECEMBER 14 1988

L-88-532  
10 CFR 50.73

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

Gentlemen:

Re: Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Reportable Event: 250-88-28  
Date of Event: November 17, 1988  
Control Room Ventilation System Realignment to  
Recirculation Mode During Post Maintenance  
Testing Due to Incomplete Calibration Method

The attached License Event Report (LER) is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

W. F. Conway  
Senior Vice President - Nuclear

WFC/RHF/gp

Attachment

cc: Malcolm L. Ernst, Acting Regional Administrator, Region II,  
USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant

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