

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

ACCESSION NBR:8810060207 DOC.DATE: 88/09/29 NOTARIZED: NO. DOCKET #
 FACIL:50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
 AUTH.NAME AUTHOR AFFILIATION
 LYONS,E. Florida Power & Light Co.
 CONWAY,W.F. Florida Power & Light Co.
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-020-00:on 880831,spurious signal generated by
 radiation monitor while testing results in control room.

W/8 ltr.

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

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APR 21 1988

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) Spurious Signal Generated By Radiation Monitor While Testing Results in Control Room Ventilation System Realignment to Recirculation Mode																						
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	8	3	1	8	8	0	2	0	Turkey Point Unit 4						0 5 0 0 0 2 5 1							
0	8	3	1	8	8	0	2	0							0 5 0 0 0 2 5 1							
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																			
1			20.402(b)					20.405(c)					<input checked="" type="checkbox"/> 50.73(a)(2)(iv)					73.71(b)				
POWER LEVEL (10)			1 0 0					20.405(a)(1)(i)					50.73(a)(2)(v)					73.71(c)				
			20.405(a)(1)(ii)					50.73(a)(2)(vi)					50.73(a)(2)(vii)					OTHER (Specify in Abstract below and in Text, NRC Form 365A)				
			20.405(a)(1)(iii)					50.73(a)(2)(viii)					50.73(a)(2)(ix)									
			20.405(a)(1)(iv)					50.73(a)(2)(x)														
			20.405(a)(1)(v)																			
LICENSEE CONTACT FOR THIS LER (12)																						
NAME															TELEPHONE NUMBER							
Edward Lyons, Compliance Engineer															AREA CODE 3 0 5 2 4 6 - 6 7 3 1							
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	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC								
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SUPPLEMENTAL REPORT EXPECTED (14)															EXPECTED SUBMISSION DATE (15)							
YES (If yes, complete EXPECTED SUBMISSION DATE)															NO							

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

On August 31, 1988, at 2310, with Unit 3 operating at 100 percent power, the Control Room Ventilation System (CRVS) shifted to the recirculation mode while conducting a routine test of the Channel B Air Intake Radiation Monitor, RAI 6642. The bypass signal apparently failed, and when the Reactor Control Operator (RCO) 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. The redundant Channel A Radiation Monitor remained in service while troubleshooting of the Channel B Radiation Monitor was performed. The failure could not be duplicated during troubleshooting efforts. Following the actuation, the CRVS was returned to its normal alignment. The Channel B Radiation Monitor was returned to service on September 2, 1988, following successful testing of the monitor. The cause of the spurious actuation signal is believed to be due to a design defect in the internal monitor bypass circuits. A design change to eliminate potential spurious actuation of the CRVS while testing the Air Intake Radiation Monitors is in progress with design completion expected by November 7, 1988.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Turkey Point Unit 3

0 5 0 0 0 2 5 0

YEAR SEQUENTIAL
NUMBER NUMBER

8 8 0 2 0 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 August 31, 1988, at 2310, with Unit 3 operating at 100 percent power, the Control Room Ventilation System (CRVS) (EIIIS:VI) shifted to the recirculation mode while conducting a routine test of the Channel B Air Intake Radiation Monitor, RAI 6642. The actuation of the system occurred when the Reactor Control Operator (RCO) placed the control switch for RAI 6642 in the check source position. Normally when performing a check source response check of the instrument, an internal electronic signal is generated to bypass the trip feature of the monitor. This bypass signal circuitry apparently failed, and when the RCO 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. The redundant Channel A Radiation Monitor remained in service while troubleshooting of the Channel B Radiation Monitor was performed. The failure could not be duplicated during troubleshooting efforts. However, the potential for inadvertent actuation of the CRVS recirculation mode was identified during the initial monitor installation in June 1988 and engineering efforts to resolve the problem began at that time. Following the actuation, the CRVS was returned to its normal alignment. The Channel B Radiation Monitor was returned to service on September 2, 1988, following successful testing of the monitor.

Cause of the Event

The actuation of the CRVS recirculation mode was caused by a spurious signal from the Channel B Intake Air Radiation Monitor RAI 6642. The cause of the spurious actuation signal is believed to be due to a design defect in the internal monitor bypass circuits which can allow spurious trip signals while testing when the setpoint of the alarm is set at a low value. The spurious signal could not be duplicated during troubleshooting of the monitor.

Analysis

Upon receipt of the spurious signal, the CRVS shifted to the recirculation mode as designed. Throughout the event, the redundant Channel A Radiation Monitor was operable. Based on the above, the health and safety of the public was not affected.

Corrective Action

- 1) Proper actuation of the CRVS in the recirculation mode was verified.
- 2) Troubleshooting of the Radiation Monitor could not duplicate the spurious signal and the monitor was tested and returned to service on September 2, 1988.
- 3) A design change to eliminate potential spurious actuation of the CRVS while testing the Air Intake Radiation Monitors is in progress with design completion expected by November 7, 1988..

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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	05000251	88	020	00	03	OF	03

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

Additional Information

Similar occurrences: While there have been past actuations of the CRVS, none have been due to the Air Intake Radiation Monitors.

Equipment manufacturer: General Atomics, model RP-1A



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SEPTEMBER 29 1988

L-88-427
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: 250-88-20
Date of Event: August 31, 1988
Spurious Signal Generated By Radiation Monitor
While Testing Results in Control Room
Ventilation System Realignment to Recirculation Mode

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

Very truly yours,


W. F. Conway
Senior Vice President - Nuclear

WFC/SDF/gp

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator,
Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant

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