

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8704140188 DDC DATE: 87/04/09 NOTARIZED: NO DOCKET #  
 FACIL: 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251  
 AUTH. NAME AUTHOR AFFILIATION  
 SALAMON, G. Florida Power & Light Co.  
 WOODY, C. O. Florida Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-007-00: on 870310, air leakage during leak rate testing of personnel hatch exceeded Tech Spec requirements. Caused by malfunctioning equilizing valve not being able to fully close. Valve replaced. W/870409 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4  
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD2-2 LA	1 1	PD2-2 PD	1 1
	McDONALD, D	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	1 1
	ACRS WYLIE	1 1	AEOD/DOA	1 1
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TAPB	1 1
	NRR/ADT	1 1	NRR/DEST/ADE	1 0
	NRR/DEST/ADS	1 0	NRR/DEST/CEB	1 1
	NRR/DEST/ELB	1 1	NRR/DEST/ICSB	1 1
	NRR/DEST/MEB	1 1	NRR/DEST/MTB	1 1
	NRR/DEST/PSB	1 1	NRR/DEST/RSB	1 1
	NRR/DEST/SGB	1 1	NRR/DLPQ/HFB	1 1
	NRR/DLPQ/QAB	1 1	NRR/DOEA/EAB	1 1
	NRR/DREP/EPB	1 1	NRR/DREP/RAB	1 1
	NRR/DREP/RPB	2 2	<del>NRR/PMAS/ILRB</del>	1 1
	NRR/PMAS/PTSB	1 1	REG FILE 02	1 1
	RES SPEIS, T	1 1	RGN2 FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1



## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Turkey Point Unit 4										DOCKET NUMBER (2) 0 5 0 0 0 2 5 1										PAGE (3) 1 OF 0 3																													
TITLE (4) Air Leakage During Leak Rate Testing of the Personnel Hatch Results in Not Meeting the Technical Specification Definition of Containment Integrity																																																	
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 3			1 0			8 7			8 7			0 0			7			0 0			0 4			0 9			8 7			0 5 0 0 0																			
OPERATING MODE (9) 1										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																																							
POWER LEVEL (10) 1 0 0										20.402(b)										20.406(c)										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)										X 50.73(a)(2)(i)										50.73(a)(2)(viii)(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 Gabe Salamon, Compliance Engineer																				TELEPHONE NUMBER AREA CODE 3 0 5 2 4 6 - 1 3 0 0																													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																																	
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS																					
X	N/H	C/P/L/G	P/2/7/0	Y																																													
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 fifteen single space typewritten lines) (16)

On March 10, 1987, at 1955, with Unit 4 at 100% power, following a determination that the Technical Specification (TS) requirements for Containment Integrity (CI) were not met due to an excessive containment leakage rate, a unit shutdown was initiated. Leak rate testing of the airlock is performed by pressurizing the airlock, then measuring the quantity of air required to be made up in order to keep the airlock pressure stable. The leak rate upon stabilization was 150,000 cc's/min, exceeding the acceptance criteria for total containment local leakage rate of .6La (45,000 cc's/min). The test conclusions were validated at 1955. The unit entered mode 3 at 2316. The cause for the high personnel hatch leak rate was the equalizing valve between the airlock and inside containment not being fully closed due to malfunctioning valve operating linkage. "Snooping" of the outside of the airlock confirmed no leakage from the airlock to the outside environment. The equalizing valve was replaced prior to root cause determination and the valve operating linkage was properly adjusted. Subsequently, the airlock leak test was performed satisfactorily.

B704140188 B70409  
PDR ADOCK 05000251  
S PDR

IE22

1/1

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)  Turkey Point Unit 4	DOCKET NUMBER (2)  0 5 0 0 0 2 5 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	— 0 0 7	— 0 0	0 2	OF	0 3

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

EVENT

On March 10, 1987, at 1955, with Unit 4 at 100% power, following a determination that the Technical Specification (TS) requirements for Containment Integrity (CI) were not met, a unit shutdown was initiated. Per the TS, CI is assumed to exist when each airlock is in compliance with the requirements of TS 3.3.4, and the containment leakage rates are within the limits of TS 4.4. Airlock operability is determined by TS 3.3.4 by limiting overall airlock leakage rate to the limits of TS 4.4.1 and 4.4.2. TS 4.4.2.b requires testing of the personnel airlock at least once every 6 months. Leak rate testing of the airlock is performed by pressurizing the airlock to between 65 and 70 psia, then measuring the quantity of air required to be made up in order to keep the airlock pressure stable. Upon pressurization of the airlock, the leak rate upon stabilization was 150,000 cc's/min, exceeding the acceptance criteria for total containment local leakage rate of .6La (45,000 cc's/min). The test conclusions were validated at 1955, after the installation of the strongbacks on the inner door was verified to be proper and not have caused erroneous readings. The unit entered mode 3 at, 2316.

CAUSE OF EVENT

The inner equalizing valve is used to equalize pressures between the personnel hatch and containment. This valve, which is physically located inside the airlock, is connected via a reach rod and associated linkage to two valve operators. One operator is located inside containment and the other is inside the personnel airlock. Valve position is indicated locally for each of the valve operators. If a misalignment condition exists in the linkage, it is possible for a mismatch to occur between actual valve position and the indicated position. In this event, the most probable cause of the high personnel hatch leakage rate was the equalizing valve not being fully closed due to the valve operating linkage being out of alignment. Troubleshooting identified the source of the leak to be the equalizing valve. As the valve position indicator showed the valve to be closed, it was concluded that the valve must be malfunctioning. The equalizing valve was therefore replaced. As found bench testing showed the valve to be leaking by. However, further bench testing showed that when the valve was fully closed, the leakage rate was acceptable and that small valve movement would cause leakage values similar to those recorded during the initial testing. It was also noted that after valve replacement, adjustments to the valve operating linkage were required in order to ensure proper valve operation. The personnel hatch leakage test was performed satisfactorily with the replacement valve in service.



## 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	8   7	—   0   0   7	—   0   0	0   3	OF	0   3

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

ANALYSIS OF EVENT

As the actual leakage was between the airlock and the containment, and the personnel hatch outer door and equalizing valve were functional, no actual leakage from the interior of the containment to the outside environment existed. No actual leak path from the containment to the outside atmosphere was discovered by the leak rate testing. However, because the total containment local leakage rate acceptance criteria could not be met and the cause not immediately found and corrected, the unit was shutdown in accordance with the TS requirements. Based on the above, the health and safety of the public were not affected.

CORRECTIVE ACTION

- 1) The direction of the leakage was verified. "Snooping" of the outside of the airlock confirmed no leakage from the airlock to the outside environment.
- 2) The equalizing valve was replaced.
- 3) The equalizing valve operating linkage was adjusted to ensure proper valve operation.

ADDITIONAL INFORMATION

Valve Manufacturer: WKM division of ACF

Model: 2F-B111-CS-01

Personnel Hatch Manufacturer: Pittsburgh-Des Moines Steel Co.

Similar occurrences: LER 251-83-015





APRIL 01 1987

L-87-161  
10 CFR 50.73

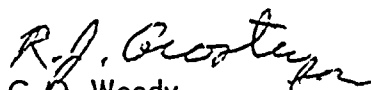
U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Re: Reportable Event 87-07  
Turkey Point Unit 4  
Docket No. 50-251  
Date of Event: March 10, 1987  
Air Leakage During Leak Rate Testing of the  
Personnel Hatch Results in Not Meeting the  
Technical Specification Definition for Containment Integrity

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,

  
C. O. Woody  
Group Vice President  
Nuclear Energy

COW/SDF/pm

Attachment

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