

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8708280248 DOC. DATE: 87/08/25 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. D. Florida Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-014-01: on 870711, water dripping from auxiliary feedwater (AFW) steam line discovered & on 870717, AFW Train 1 declared inoperable. Cause of leak unknown. Affected piping & fitting replaced. W/870825 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5  
 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 McDONALD, D	1 1 1 1	PD2-2 PD	1 1
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1
	DEDRO	1 1	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/RAB	1 1
	NRR/DREP/RPB	2 2	NRR/PMAS/ILRB	1 1
	REG FILE 02	1 1	RES DEPY GI	1 1
	RES TELFORD, J	1 1	RES/DE/EIB	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) 050002511	PAGE (3) OF 03
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TITLE (4) Auxiliary Feedwater Train Inoperability Due to Small Steam Supply Leak In Excess of Technical Specification Time Limit Causes Unit Shutdown

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	14	87	87	014	01	08	25	87	N/A		050002511

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) 1.00	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)						
	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)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 368A)						
	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 Gabe Salamon, Compliance Engineer	TELEPHONE NUMBER 305 246-6560
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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	
X	B1A	P1S1F1		Y						

SUPPLEMENTAL REPORT EXPECTED (14) <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On July 11, 1987 at approximately 0800, with Unit 4 in mode 1, water was discovered dripping from an Auxiliary Feedwater (AFW) steam line. A Plant Work Order (PWO) was generated to repair the leak. On July 14, at about 1100, the source of the leak was identified as a pinhole on a reducer. Subsequently, a Nonconformance Report was generated on July 17 at 1300, and AFW train #1 was declared inoperable. Technical Specification (TS) 3.18.1 requires restoration of the inoperable AFW train to an operable status within 72 hours, or placing the unit in at least mode 3 within the next 6 hours. As the source of the leak was identified on July 14, the Limiting Condition for Operation for operation with 1 train of AFW started on July 14. The unit entered mode 2 at 2233 on July 15 for an unrelated problem, and entered mode 3 at 1712 on July 17. The cause of the leak is not known at this time. The fitting and a portion of the adjacent piping have been removed and FPL is performing an analysis of the fitting and the weld. A computerized list of quality/safety related components called the Q-list is maintained. For this PWO, the Q-list did not identify the connected valve as being quality or safety related. The valve was interpreted as non-safety related, and the PWO was treated as not requiring any engineering evaluation. The affected piping and fitting were replaced.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	0 1 4	0 1	0 2	OF	0 3

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

EVENT

On July 11, 1987 at approximately 0800, with Unit 4 in mode 1, water was discovered dripping from a lagging covered Auxiliary Feedwater (AFW) (E1IS:BA) steam supply drain line. The line is a branch to a steam trap from the steam line which supplies Unit 4 steam to the turbines for AFW train 1. This line is not capable of being isolated from the turbine steam supply. A Plant Work Order (PWO) was generated in order to repair the leak. As the most likely source of a leak would have been faulty valve packing, and the leak was small, resolution of the problem was not given the same attention as would a PWO for an inoperable valve. On July 14, at about 1100, the technician performing the repair identified the source of the leak as a pinhole on a reducer. On the morning of July 17, the Nuclear Regulatory Commission Senior Resident Inspector noticed the PWO tag attached to the line, and questioned the fact that a non-safety related (NNS) PWO was hanging on the AFW system, which is a safety-related (SR) system. The Inspector's question initiated a re-evaluation of the PWO, and it was determined that the PWO should have been classified as SR. Subsequently a Non-conformance Report (NCR) was generated on July 17 at 1300. Based upon the preliminary NCR disposition which stated that the leak was an operability concern, Auxiliary Feedwater train #1 was declared inoperable at 1635 on July 17. Technical Specification (TS) 3.18.1 requires restoration of the inoperable AFW train to an operable status within 72 hours, or placing the unit in at least hot standby (Mode 3) within the next 6 hours. Because the technician identified the source of the leak on July 14, it was determined that the Limiting Condition for Operation (LCO) for operation with only 1 train of AFW started at 1100 on July 14. Unit 4 entered Mode 2 at 2233 on July 15, for an unrelated problem. In compliance with the action statement of TS 3.18.1, a unit shutdown was initiated at 1635 on July 17, and the unit entered Mode 3 at 1712 on July 17.

CAUSE OF EVENT

The engineering evaluation performed as a result of the NCR which was generated on July 17 identified the leak to be pinhole leaks in a 2"x1" reducer weld and a branch line to the steam trap sockolet weld. The cause of the pinhole leaks through the welds is not known at this time. The fitting and a portion of the adjacent piping have been removed and FPL is performing an analysis of the fitting and the weld.

The failure to identify the leak as requiring immediate engineering attention is due to several interrelated factors. Turkey Point has a computer-assisted PWO generation program in place. The computer program which supports the effort is called the Nuclear Job Planning System (NJPS). NJPS fills in several fields on the PWO, however the field identifying the safety classification of the valve was left blank. Turkey Point maintains a computerized list of quality/safety related components which is referred to as the Q-List. Valve AFSS 4-043 did not appear on the Q-List. Based on the this, the valve was determined to be

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Turkey Point Unit 4	DOCKET NUMBER (2)  0   5   0   0   0   2   5   1	LER NUMBER (6)			PAGE (3)		
		YEAR 87	SEQUENTIAL NUMBER 014	REVISION NUMBER 01			

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

Non-safety, and the PWO was treated as non-safety related and thus did not require an engineering evaluation. Additionally, the PWO identified the leak to be a "valve packing or piping leak." The planning and QC personnel focused in on the "valve" and failed to realize the potential consequences of the leak being in a safety related section of the pipe.

ANALYSIS OF EVENT

The AFW system serves as a backup system for supplying feedwater to the secondary side of the steam generators for residual heat removal from the reactor when the normal feedwater and standby steam generator feedwater systems are not available. The residual heat removal function is required for loss of main feed, loss of offsite power, and small break Loss of Coolant Accident.

At the time of this event, Unit 4 was at 100% power and Unit 3 was in Mode 5 (cold shutdown). No events requiring AFW system operation occurred following the discovery of the leak, and prior to unit shutdown. Even if an event requiring AFW initiation had occurred, AFW train 2 was operable and capable of performing its design function. Based on the above, the health and safety of the public were not affected.

CORRECTIVE ACTIONS

- 1) The affected piping and fitting was replaced.
- 2) The section of pipe with the leak was removed and will be examined to determine the root cause.
- 3) Planning personnel were instructed to not assume that when a component is not listed on the Q-list that the component is therefore NNS. They are to determine through the use of an alternate method the actual safety classification of the item.
- 4) Valve AFSS 4-043 will be added to the Q-list.
- 5) Additional corrective actions will be evaluated, based on the results of the root cause determination of Corrective Action (2).

ADDITIONAL DETAILS

Piping was welded by Bechtel Group.  
Similar occurrences: none.



AUGUST 25 1987

L-87-349  
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: 87-14 Revision 1  
Date of Event: July 14, 1987  
Auxiliary Feedwater Train Inoperability Due To Small Steam Supply Leak  
In Excess of Technical Specification Time Limit Causes Unit Shutdown

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

This revision is being submitted to correct an incorrect Event Date in blank (5) and delete extra words inadvertently left in a sentence in the Cause of Event section in Revision 0, L-87-331.

Very truly yours,

C. O. Woody  
Group Vice President  
Nuclear Energy

COW/SDF/gp

Attachment

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

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