

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8911220074 DOC. DATE: 89/11/14 NOTARIZED: NO DOCKET #  
 FACIL: 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251  
 AUTH. NAME AUTHOR AFFILIATION  
 POWELL, D.R. Florida Power & Light Co.  
 HARRIS, K.N. Florida Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-013-00: on 891020, missed surveillance on ICW isolation valves to turbine plant cooling water HXs.

W/8 ltr.

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

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	ACRS WYLIE	1 1	AEOD/DOA	1 1
	AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2
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	NRR/DEST/ICSB 7	1 1	NRR/DEST/MEB 9H	1 1
	NRR/DEST/MTB 9H	1 1	NRR/DEST/PSB 8D	1 1
	NRR/DEST/RSB 8E	1 1	NRR/DEST/SGB 8D	1 1
	NRR/DLPQ/HFB 10	1 1	NRR/DLPQ/PEB 10	1 1
	NRR/DOEA/EAB 11	1 1	NRR/DREP/RPB 10	2 2
	NUDOCS-ABSTRACT	1 1	<u>REG FILE</u> 02	1 1
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**FPL**

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

L-89-414  
10 CFR 50.73

**NOV 14 1989**

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: 89-13  
Date of Event: October 20, 1989  
Missed Surveillance on Intake Cooling Water Isolation Valves to the  
Turbine Plant Cooling Water Heat Exchangers due to Personnel Error

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,

K. N. Harris  
Vice President  
Turkey Point Plant Nuclear

KNH/DRP/DH/rat

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

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## 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 4			
TITLE (4) Missed Surveillance On Intake Cooling Water Isolation Valves To The Turbine Plant Cooling Water Heat Exchangers Due To Personnel Error																							
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)								
1	0	2	0	8	9	8	9	0	1	3	0	0	1	1	4	8	9	0 5 0 0 0					
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																					
3		20.402(b)				20.406(e)				50.73(a)(2)(iv)				73.71(b)									
POWER LEVEL (10)		20.406(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)									
0 0 1 0		20.406(a)(1)(ii)				50.36(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)(ix)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME David R. Powell, Regulation and Compliance Supervisor												TELEPHONE NUMBER AREA CODE 3 0 5 2 4 6 - 5 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							
YES (If yes, complete EXPECTED SUBMISSION DATE)												X NO											

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

On October 20, 1989, with Unit 4 in Mode 3 (Hot Standby), FPL Quality Assurance personnel discovered that quarterly Inservice Testing of Intake Cooling Water (ICW) isolation valves POV-4-4882 and POV-4-4883 to the Turbine Plant Cooling Water (TPCW) heat exchangers had not been performed. Plant Change/Modification (PC/M) 88-346, which was implemented and turned over to Operations on April 30, 1989, imposed quarterly Inservice Testing requirements on these valves. Failure to perform the quarterly Inservice Test is in violation of Technical Specification 4.0.3 which addresses surveillance requirements for Inservice Inspection of ASME Code Class 1, 2, and 3 components. The cause of the missed surveillance was cognitive errors by contract personnel. Failure to identify and document the procedures requiring revision after turnover of PC/M 88-346 and failure to elevate unresolved procedure revision comments to a higher level of management resulted in the missed surveillance. The valves were tested and determined to meet their intended safety function. The valves are being added to Operating Procedure (OP) 0209.1, "Valve Exercising Procedure." The individual responsible for this condition has been counseled.



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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Turkey Point Unit 4	0 5 0 0 0 2 5 1	8 9	— 0 1 3	— 0 0	0 2	OF 0 4

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

DESCRIPTION OF THE EVENT

On October 20, 1989, with Unit 4 in Mode 3 (Hot Standby), FPL Quality Assurance personnel reviewed Plant Change/Modification (PC/M) 88-346. Section 14.2 of PC/M 88-346 identifies quarterly Inservice Test requirements for Intake Cooling Water (ICW) isolation valves (EIIS:BI) POV-4-4882 and POV-4-4883 to the Turbine Plant Cooling Water (TPCW) heat exchangers (EIIS:KB). A review of Operating Procedure (OP) 0209.1, "Valve Exercising Procedure," determined that these valves had not been included. The identified quarterly Inservice Test for valves POV-4-4882 and POV-4-4883 had not been performed since PC/M 88-346 was implemented and turned over to Operations on April 30, 1989. This condition is in violation of Technical Specification 4.0.3 which addresses surveillance requirements for inservice inspection of ASME Code Class 1, 2, and 3 components.

CAUSE OF THE EVENT

The cause of the missed surveillance was cognitive errors by contractor personnel. Administrative Procedure (AP) 0190.15, "Plant Changes and Modifications (PC/M)," Figure J, "System Acceptance/Turnover Sheet," requires the Procedure Upgrade Program (PUP) Coordinator to list all procedures not required for acceptance/turnover, but requiring revision, on Page 2 of Figure J. This section of Figure J for PC/M 88-346 was marked "N/A" by the PUP Coordinator. Failure to identify procedure OP 0209.1 as requiring revision, along with the required revision completion date, violated an administrative control established to ensure procedure upgrading.

Technical Department instruction PDI-PTN-001, "PC/M Review Process," controls the review of PC/Ms by the PUP Group. On October 26, 1988, the need to revise procedure OP 0209.1 was identified on Attachment 2, Page 4, of PDI-PTN-001. On June 27, 1989, a Request for Procedure Review was initiated by the PUP Group to revise procedure OP 0209.1. During the procedure revision review process, comments concerning the Inservice Test frequency could not be resolved at the reviewer level. Failure to elevate these comments to a higher level of management for resolution resulted in procedure OP 0209.1 not being revised and the quarterly Inservice Test being missed.

PC/M 88-346 was implemented and turned over to Operations on April 30, 1989. The first quarterly Inservice Test on valves POV-4-4882 and POV-4-4883 was due on August 1, 1989.

ANALYSIS OF THE EVENT

The safety function for valves POV-4-4882 and POV-4-4883 is to close following a Loss of Coolant Accident (LOCA) and consequent Safety Injection actuation



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signal (SIAS). This closure ensures adequate cooling water flow through the Component Cooling Water (CCW) heat exchangers (EIIS:CC) for accident heat load removal. Also, it ensures that the ICW system will meet single failure requirements.

PC/M 88-346 specifies a closure time for valves POV-4-4882 and POV-4-4883 of 3 minutes plus/minus 30 seconds (150 seconds to 210 seconds). The upper limit is based on the safety function of the valves. The lower limit is based on the potential for inducing hydraulic transients in the ICW system which could adversely affect ICW system integrity.

At approximately 1330, on October 20, 1989, with Unit 4 in Mode 3 (Hot Shutdown), the valves were stroked and timed in accordance with OP 0209.1, Appendix P. The valves closed in 22.33 seconds and 46.23 seconds, respectively. The valves met their intended safety function by closing in less than 210 seconds.

An engineering analysis of the "as found" valve closure times has been performed. For conservatism, simultaneous closing of both valves at 20 seconds was analyzed. The analysis indicated that a simultaneous 20 second closure results in a pressure spike of 8.5 psi. The analysis for the 150 second closure indicates that the pressure spike is 2.2 psi.

Previously, a hydraulic analysis was performed as a result of Nonconformance Reports (NCRs) written against cracked ICW flanges. A Bechtel analysis indicated that a maximum pressure spike expected to occur in the ICW system would be approximately 40 psi. This included the 2.2 psi pressure spike incurred as the result of valves POV-4-4882 and POV-4-4883 closing in 150 seconds. The design pressure rating of the ICW system piping is 52 psi. The additional 6.3 psi created by simultaneous closure of valves POV-4-4882 and POV-4-4883 in 20 seconds is within the 52 psi design pressure rating of the ICW system piping.

CORRECTIVE ACTIONS

1. The air throttle valves for POV-4-4882 and POV-4-4883 were adjusted and the valves satisfactorily stroked in 3 minutes plus/minus 30 seconds four times. The valves were declared back in service at 2200 and 2305, respectively, on October 20, 1989.
2. A Request for Procedure Review to add the Quarterly Inservice Test requirements of PC/M 88-346 to OP 0209.1, Appendix M, was reviewed by the Plant Nuclear Safety Committee (PNSC) and approved by the Plant Manager-Nuclear (PM-N) on October 24, 1989.
3. The RUP Coordinator responsible for processing the System Acceptance/Turn-over Sheet (SATS) associated with PC/M 88-346 and the Request for Procedure Review for OP 0209.1 has been counseled.
4. A detailed review of procedures requiring revision in accordance with PDI-PTN-001 has been initiated. Procedures that have not been revised by their scheduled revision date will be identified. Appropriate actions will be taken to make necessary procedure revisions. This action will be completed by January 19, 1990.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

ADDITIONAL INFORMATION

Missed surveillances have been reported in the following Licensee Event Reports

50-250/88-014	50-250/88-009	50-250/88-006
50-250/87-028	50-250/87-019	50-250/87-013

Failure to incorporate engineering/design criteria into plant procedures has been reported in Licensee Event Reports 50-250/89-014 and 50-250/88-018.





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