REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8708190206 DOC. DATE: 87/08/14 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 87-017-00: on 870715, inadvertent isolation of auxiliary feedwater nitrogen backup sys. Caused by personnel error due to failure to follow procedures. Sys realigned to proper configuration using Procedure 4-OP-065. 2. W/870814 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	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-2 LA	1	1	PD2-2 PD	1	1
	McDONALD, D	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

TOTAL NUMBER OF COPIES REQUIRED: LTTR 43 ENCL 42

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Turkey Point Unit 4	0 5 0 0 0 2 5 1	1 OF 0 3

TITLE (4) Backup Nitrogen Supply to Auxiliary Feedwater System Flow Control Valves Isolated 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	DOCKET NUMBER(S)
0 7	1 5	8 7	8 7	0 1 7	0 0	0 8	1 4	8 7	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	1
POWER LEVEL (10)	1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check one or more of the following)* (11)

	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)(vii)		OTHER *(Specify in Abstract below and in Text, NRC Form 366A)*
	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	TELEPHONE NUMBER
	AREA CODE
Gabe Salamon, Compliance Engineer	3 0 5 — 2 4 6 - 6 5 6 0

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	

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 July 15, 1987, at 0245, a Turbine Operator (TO) discovered what he believed to be more than the required number of Nitrogen bottles aligned to the Auxiliary Feedwater System (AFW) Flow Control Valves for both trains 1 and 2. The design for the Nitrogen Backup System calls for 5 Nitrogen bottles with any three being valved in for each train. Three bottles were valved in, however the TO's understanding was that only one was required. The TO changed the alignment on both trains. On July 15 at 1920, another TO discovered that the AFW Nitrogen Backup System was incorrectly aligned for both trains. It was determined that the alignment was incorrect and both AFW trains were realigned. The cause of the isolation of the AFW Nitrogen Backup System was personnel error due to an inadequate log sheet, and failure to follow procedures. A training brief on the Nitrogen Backup System was prepared and issued. A training brief on operator actions upon the identification of a perceived alignment problem was issued. New labeling was attached to the Nitrogen bottles. Procedures were revised to add a weekly Nitrogen pressure gauge surveillance. Procedures were revised to change the logs to delineate the requirement for 3 Nitrogen bottles to be valved in.

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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)

EVENT

On July 15, 1987, at approximately 0245, a Turbine Operator (TO) discovered what he believed to be more than the required number of Nitrogen bottles aligned to the Auxiliary Feedwater System (AFW) (EIIS:BA) Flow Control Valves (FCV) Nitrogen Backup System for both trains 1 and 2 on Unit 4. The design for the Nitrogen Backup System calls for 5 Nitrogen bottles with any 3 of them being valved in for each train. This design change, per Plant Change/Modification (PCM) 85-176, was turned over to the plant on June 26, 1987. This change was made in order to provide a 2 hour Nitrogen supply backup to the AFW FCV's. The previous design called for a total of 5 bottles for both trains, with only the #1 bottle to be in service and the rest of the bottles being valved out. At the time the TO performed the realignment, 3 bottles were valved in, however the TO's understanding was that only 1 bottle was required. Each Nitrogen bottle is isolated from the header with two valves. A pressure gauge with its own isolation valve is located between these two valves. When the bottles are aligned properly, both Nitrogen bottle isolation valves for each bottle are either open or closed, as required. When the TO found bottles #2, #3, and #4 valved in, he proceeded to close the valve closest to each of these bottles. When he attempted to align bottle #1, he opened only the valve closest to the bottle, leaving this bottle isolated also. Following this, the TO made the appropriate notation on the log sheet. Additionally, the TO had to obtain a pressure reading from the valved in bottle. In order to accomplish this, the TO had to break a plain wire seal on the root valve to Pressure Indicator PI-4-7007, which measures the Nitrogen header pressure, and opened the valve. The reading indicated satisfactory pressure, even though only the pressure of the isolated header was being measured.

On July 15 at 1920, while taking log readings, another TO discovered that the AFW Nitrogen Backup System was incorrectly aligned for both trains. The control room was immediately notified and the Nuclear Watch Engineer (NWE) and the Plant Supervisor-Nuclear (PSN) initiated an investigation.

It was determined that the alignment was incorrect and at 2020 on July 15, realignment of the Nitrogen Backup System was initiated. By 2130, both AFW trains were realigned and independently verified, using procedure 4-OP-065.2, "Auxiliary Feedwater and Main Steam Isolation Valve Backup Nitrogen Gas Supply System."

CAUSE OF EVENT

The cause of the inadvertent isolation of the AFW Nitrogen Backup System was personnel error due to an inadequate log sheet, and failure to follow procedures.

The AFW system alignment requirements were changed during the latest Unit 4 outage in conjunction with work related to PCM 85-176. This design change was turned over to the plant on June 26, 1987. The change was made in order to provide a 2 hour

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

Nitrogen supply backup to the AFW FCV's. The previous design called for a total of 5 bottles for both trains, with only the #1 bottle to be in service and the rest of the bottles being valved out. At the time the TO performed the realignment, 3 bottles were valved in, however the TO's understanding was that only 1 bottle was required. While procedure 4-OP-065.2 was updated to be in accord with the PCM, the shift surveillance log-sheet did not reflect any acceptance criteria.

Additionally, contrary to plant procedures, an alignment was changed on a safety system without using a procedure, without independent verification, and without notification of shift supervision.

ANALYSIS OF EVENT

The AFW FCV's are normally operated using motive force from the Instrument Air System (IAS) (EIIS:LD). As a backup to this source, the Nitrogen system is available via automatic transfer on low instrument air pressure. The Nitrogen Backup System was valved out and thus not available for approximately 17 hours. Even had a loss of offsite power occurred, the AFW system would have been capable of performing its design function as the diesel powered air compressors (which supply the IAS), were in service and operable during this 17 hours. Based on the above, the health and safety of the public were not affected.

CORRECTIVE ACTIONS

1) The system was realigned to the proper configuration using procedure 4-OP-065.2.

2) A training brief on the Nitrogen Backup System was prepared and issued.

3) A training brief on operator actions upon the identification of a perceived alignment problem was issued.

4) New labeling was attached to the Nitrogen bottles.

5) Procedures 0-OSP-200.1, "Schedule of Plant Checks and Surveillances", and OP-0204.2, "Periodic Tests, Checks, and Operating Evolutions", were revised to add a weekly Nitrogen pressure gauge surveillance.

6) Procedures 3/4-OSP-201.3, "Nuclear Plant Operator Daily Logs", were revised to change the logs to delineate the requirement for 3 Nitrogen bottles to be valved in.

7) The subject operator was counseled on the seriousness of his error and the requirements for strict adherence to procedures.

ADDITIONAL DETAILS

Similar occurrences: none

P. O. B[redacted]4000, JUNO BEACH, FL 33408

FPL
FLORIDA POWER & LIGHT COMPANY

AUGUST 14 1987

L-87-334
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: 87-17
Date of Event: July 15, 1987
Backup Nitrogen Supply to Auxiliary Feedwater System
Flow Control Valve Isolated 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,

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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