REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8711160102 DOC. DATE: 87/11/09 NOTARIZED: NO DOCKET #
FACIL: 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
AUTH. NAME AUTHOR AFFILIATION
WAGER, V. Florida Power & Light Co.
WOODY, C. O. Florida Power & Light Co.
RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-024-00: on 871008, temp for Boric Acid Heat Tracing Circuit Number 6 decreased below 145 F. Caused by cold flushing of crosstie line. Flushing of boric acid pump crosstie line stopped & sys alignment restored. W/871109 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
	ARM/DCTS/DAB	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/DRIS/SIB	1	1	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 45 ENCL 44

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)
Boric Acid Heat Tracing Circuit Number 6 Decreases to Less Than 145 Degrees

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)
									N/A	0 5 0 0 0
1 0	0 8	8 7	8 7	— 0 2 4	— 0 0	1 1	0 9	8 7	N/A	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)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.406(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Virgil Yager, Licensing Engineer	3 0 5 — 2 4 6 - 6 4 7 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYS	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
X	F E	S P T				N					

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)

At 1 50, on October 8, 1987, with Unit 4 in Mode 1 at 100% power, the tem ature for Boric Acid Heat Tracing Circuit Number 6 (HT-6), decreased be 145 degrees fahrenheit. This circuit is located on the crosstie pip g and valves between the 4A and 4B Boric Acid pumps, and on the pump's discharge line to the inlet of the Unit 4 Boric Acid Filter. Preparations were made to shut down the unit as required by Technical Specification (TS) 3.0.1. The temperature decrease occurred during the time the 4B Boric Acid pump crosstie line was being flushed to facilitate maintenance work on valve 4-374. The flushing was stopped and the system was restored to the normal alignment. A blended makeup flow was pumped through the boric acid flowpath to verify that there was no blockage in the pipe and to assist with the temperature increase in the circuit. At 1915, the temperature started increasing and continued to increase steadily until it was above 145 degrees at 2007 hours. Also found as a part of the investigation of the heat tracing temperature was a sensing bulb that was not adequately attached to the piping. This was not a contributing factor to the temperature drop since the system had been functioning properly prior to the flushing of the system. The sensing bulb was reanchored and the Heat Tracing Periodic Test was performed on HT-6.

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(9 83)

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Turkey Point Unit 4	0 5 0 0 0 2 5 1	8 7	— 0 2 4	— 0 0	0 2 OF 0 3

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

EVENT

At 1750, on October 8, 1987, with Unit 4 in Mode 1 at 100% power, the temperature for Heat Tracing Circuit Number 6 (HT-6) decreased below 145 degrees. This circuit is located on the crosstie piping and valves between the 4A and 4B Boric Acid pumps and on the pump's discharge line to the inlet of the Boric Acid Filter. Preparations were made to shut down the unit as required by Technical Specification (TS) 3.0.1. Investigation for the cause of the temperature decrease revealed the event occurred during the time that the 4B Boric Acid pump crosstie line was being flushed to facilitate maintenance work on valve 4-374. During the flush the temperature decreased to 117 degrees. The flushing was stopped and the system was restored to the normal alignment. .At 1915, the temperature for HT-6 began increasing. The decision as made to postpone the load reduction for removing the unit from the line until 2130, which would leave sufficient time for an orderly shutdown. At 1930, a blended makeup flow was pumped through the normal boric acid flowpath to ensure the piping was not blocked by crystalized boric acid and to accelerate the rate of the temperature increase. The temperature increased steadily until it was above 145 degrees at 2007 hours. This terminated the shutdown action requirement for TS 3.0.1. Also found as a part of the investigation conducted when the heat tracing circuit temperature dropped was a temperature sensing bulb that was not adequately attached to the piping. This was determined not to have been a contributing factor since the heat tracing circuit was functioning properly prior to the start of the flushing processing. The temperature sensing bulb was reanchored and the Heat Tracing Periodic Test was performed on HT-6.

CAUSE OF EVENT

The event was caused by the cold flushing of the crosstie line. The temperature of the primary water which is used for flushing is relatively cold compared to the temperature of the borated water in the system. The temperature could not be maintained due to the heat being removed by the flush exceeding the heat input capacity of the heat tracing circuit.

ANALYSIS OF EVENT

The boric acid flowpath was not blocked during the event and this was verified with the blended makeup to the Reactor Coolant System (RCS). Additionally, the boric acid flowpath from the Refueling Water Storage Tank (RWST) via the charging system to the RCS was operable at the time of the event. The capability to borate the RCS was not impacted by the event. Based on the above the health and safety of the public were not affected.

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 2 4	—	0 0					0 3	OF	0 3	

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

CORRECTIVE ACTIONS

1) Preparations were made to shut down the unit when the heat tracing temperature decreased below 145 degrees, as required by TS 3.0.1.

2) The flushing of the 4B Boric Acid pump crosstie line was stopped and the normal system alignment was restored.

3) A blended makeup flow of borated water was pumped through the normal flowpath to ensure there was no blockage in the line, and to accelerate the rate of temperature increase in the line.

4) The temperature sensing bulb was re-anchored to the boric acid pipe, and the Heat Tracing Periodic Test was performed on HT-6 to ensure the temperature controls were functioning properly.

5) An evaluation will be made to determine if enhancements can be made to the flushing method, that would minimize the impact on the heat tracing temperature.

ADDITIONAL DETAILS

Similar Occurrences: None.

P. O. BOX 14000, JUNO BEACH, FL 33408-0420

FPL

NOVEMBER 0 9 1987

L-87-453
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: 87-24
Date of Event: October 8, 1987
Boric Acid Heat Tracing Circuit
Number 6 Decreases to Less Than 145 Degrees

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/PLP/gp

Attachment

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

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