PRIORITY 1

(ACCELERATED RIDS PROCESSING)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9509200002 DOC.DATE: 95/09/13 NOTARIZED: NO DOCKET #
FACIL:50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
AUTH.NAME AUTHOR AFFILIATION
KNORR,J.E. Florida Power & Light Co.
PLUNKETT,T.F. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 95-005-00:on 950818,containment pressure testing procedure resulted in inhibiting both trains of containment pressure from initiated ESF.Revised procedure to require testing of each train separately.W/950913 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 6
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-1 PD	1	1	CROTEAU,R	1	1
INTERNAL:	AEOD/SPD/RAB	2	2	AEOD/SPD/RRAB	1	1
	FILE CENTER	1	1	NRR/DE/ECGB	1	1
	NRR/DE/EELB	1	1	NRR/DE/EMEB	1	1
	NRR/DISP/PIPB	1	1	NRR/DRCH/HHFB	1	1
	NRR/DRCH/HICB	1	1	NRR/DRCH/HOLB	1	1
	NRR/DRPM/PECB	1	1	NRR/DSSA/SPLB	1	1
	NRR/DSSA/SPSB/B	1	1	NRR/DSSA/SRXB	1	1
	RES/DSIR/EIB	1	1	RGN2 FILE 01	1	1
EXTERNAL:	L ST LOBBY WARD	1	1	LITCO BRYCE,J H	2	2
	NOAC MURPHY,G.A	1	1	NOAC POORE,W.	1	1
	NRC PDR	1	1	NUDOCS FULL TXT	1	1

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM OWFN 5D8 (415-2083) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED
TOTAL NUMBER OF COPIES REQUIRED: LTTR 26 ENCL 26

A04

PRIORITY 1

1

DOCUMENT

FPL

SEP 13 1995

L-95-256
10 CFR §50.73

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

Gentlemen:

Re: Turkey Point Unit 3
Docket No. 50-250
Reportable Event: 95-005-00
Containment Pressure Testing Procedure Results in Inhibiting Both Trains of Containment Pressure Initiated Engineered Safety Features

The attached Licensee Event Report, 250/95-005-00, is being provided in accordance with 10 CFR 50.73(a)(2)(i)(B).

If there are any questions, please contact us.

Very truly yours,

T. F. Plunkett
Vice President
Turkey Point Plant

JEK

attachment

cc: Stewart D. Ebneter, Regional Administrator, Region II, USNRC
Thomas P. Johnson, Senior Resident Inspector, USNRC, Turkey Point Plant

JE22

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
TURKEY POINT UNITS 3 AND 4	05000250	1 OF 5

TITLE Containment Pressure Testing Procedure Results in Inhibiting Both Trains of Containment Pressure Initiated Engineered Safety Features

EVENT DATE (5)			LER NUMBER(6)			RPT DATE (7)			OTHER FACILITIES INV. (8)	
MON	DAY	YR	YR	SEQ #	R#	MON	DAY	YR	FACILITY NAMES	DOCKET # (S)
08	18	95	95	005	00	09	13	95	Turkey Point Unit 4	05000251

OPERATING MODE (9)	1/1	10 CFR 50.73(a)(2)(i)(B)
POWER LEVEL (10)	100/100	

LICENSEE CONTACT FOR THIS LER (12)

	TELEPHONE NUMBER
J. E. Knorr, Regulation and Compliance Specialist	305-246-6757

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	NPRDS?	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	NPRDS?
D									

SUPPLEMENTAL REPORT EXPECTED (14) NO ☒ YES ☐	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
(If yes, complete EXPECTED SUBMISSION DATE)				

ABSTRACT (16)

On August 18, 1995, Turkey Point Units 3 and 4 were operating at 100% power. As a result of a question posed by a reactor operator trainee, Florida Power and Light Company (FPL) determined that, during the performance of a surveillance of containment high and containment high-high pressure engineered safety features, momentary (a few seconds) blocking of engineered safety features actuation from a containment pressure signal occurred on both trains of the actuation system. This is contrary to the requirements of Turkey Point Technical Specifications which require at least one train of actuation logic to be operable in Mode 1. This surveillance is proceduralized in an Operating Procedure which directed the simultaneous surveillance of both trains of each of the three channels. The procedure has been revised to require testing of each train separately.

I. DESCRIPTION OF THE EVENT

On August 18, 1995, Florida Power & Light Company's (FPL) Turkey Point Units 3 and 4 were operating in Mode 1 at 100% power.

During on-shift training, a question was asked by a reactor operator trainee about the function of the actuation block during the completion of the surveillance on the containment high and containment high-high pressure signals which activate engineered safety features systems. As a result of the investigation to address the question, FPL determined that, during the performance of the surveillance of containment high and containment high-high pressure engineered safety features [JE:CHA], momentary blocking of engineered safety features actuation due to containment pressure has occurred on both trains of the actuation system.

Turkey Point Technical Specification 3.3.2, Table 3.3-2 requires two containment pressure automatic actuation logic trains to be operable in Mode 1. Action statement 14 of Table 3.3-2, allows one train to be bypassed for up to 2 hours for surveillance testing provided the other train is operable. Contrary to this Action statement, a subsection of Operating Procedure, OP 4004.4 "Containment Isolation Racks QR50 and QR51 - Periodic Test" directed the operators to depress both Channel 1 HCP (high containment pressure) test buttons (on the QR50 and QR51 cabinets [JE:CHA]) simultaneously. By depressing both buttons at the same time, the two trains of automatic actuation logic are rendered inoperable for the amount of time the buttons are depressed, usually a few seconds. The circuit design is such that one train of the logic is reenabled after the release of one button and the second train of logic is reenabled after the release of the second button.

A review of procedure history has shown that simultaneous surveillance of both trains has been done since at least 1976.

II. SYSTEM DESCRIPTION

Coincident containment high (4 psig inside containment) and containment high-high (20 psig inside containment) pressure signals will initiate three actions:

1) Phase B containment isolation [JM:CHA],
2) Containment spray initiation and [JE:CHA]
3) Main steam line isolation [SB:CHA].

Each of the three actions has two trains of relay logic; either train will initiate the action. Turkey Point Technical Specifications require that these two trains be operable during plant operation. One train is allowed to be put in bypass for testing for a period of two hours or the plant must be taken to hot shutdown within the following 6 hours.

No Technical Specification Action statement addresses the situation in which two trains of actuation logic are inoperable. Therefore, for the short time the two buttons were depressed, Technical Specification 3.0.3 applied. Specification 3.0.3 requires that actions be taken within one hour to place the unit in at least hot standby within the next 6 hours. Since, in each case, the position of the test push buttons was returned to normal in a few seconds, and actuation logic restored, no shutdown was initiated or required.

Each of the two trains of actuation logic has six pressure switches. Three pressure switches comprise containment high pressure and three pressure switches comprise containment high-high pressure. Any two of three high containment pressure switches exceeding their setpoint (4 psig) will activate a Phase A containment isolation and will start safety injection [BQ:CHA] and associated engineered safety features equipment. The high-high containment pressure switches are also a two out of three logic.

Therefore, during the test sequence of one high pressure channel on both actuation trains, an actual signal sensed by either of the other two channels would not produce an engineered safety features actuation due to both trains being blocked. However, during the testing of the high-high containment pressure (20 psig) channels, an actual high pressure signal (4 psig) would have actuated the engineered safety features equipment expected (i.e., safety injection, Phase A containment isolation, etc.)

In order to test each of the six containment pressure channels, the final output relay for each associated actuation logic train is blocked to prevent actual engineered safety features system initiation if another spurious signal was received. As discussed earlier, both trains of actuation logic have been blocked simultaneously during testing in the past at Turkey Point. In the case of OP 4004.4, both actuation trains were blocked for the short duration of the test. The full capability of each train of actuation logic returned after the release of each respective test button.

III. CAUSE OF THE EVENT

Certain steps in OP 4004.4 (steps 5a, 6a, 7a, 8a, 9a, 10a) require two operators to simultaneously depress two test push buttons, one on each of the two containment isolation actuation logic racks (QR50 and QR51). Each button actuates a logic relay associated with the logic train in that cabinet. This practice resulted in the disabling of both logic trains for actuation due to either high containment pressure or high-high containment pressure.

The test steps which disabled the two containment pressure logic trains last for only a few seconds at a time. The surveillance requirement for these trains is once each 62 days on a staggered test basis.

IV. ANALYSIS OF THE EVENT

The Updated Final Safety Analysis Report (UFSAR), Chapter 14 safety analyses credit the high containment pressure channels only in determining the effect on containment integrity during certain design basis events. The remaining engineered safety features actuated by the high containment pressure logic are not assumed in the safety analyses as being actuated by a pressure signal. The containment pressure transient analysis is performed for both steamline breaks and Loss of Coolant Accidents (LOCAs). The LOCA analysis is the limiting scenario and will therefore be addressed in this discussion.

In the LOCA analysis, one containment spray pump is assumed to start within 60 seconds of LOCA initiation. Four different LOCA or Loss Of Offsite Power (LOOP) scenarios result in the start of a containment spray pump.

- High-high containment pressure concurrent with or less than 27 seconds after a LOOP/LOCA; the containment spray pump is started in the third load block, 27 to 29 seconds after the LOOP signal.

- High-high containment pressure concurrent with or less than 13 seconds after a LOCA; the containment spray pump is started in the third load block, 11 to 13 seconds after the safety injection signal.

- High-high containment pressure later than 27 seconds after a LOOP/LOCA; the containment spray pump is started in the eighth load block, 60 seconds after the LOOP signal.

- High-high containment pressure later than 13 seconds after a LOCA; the containment spray pump is started in the eighth load block, 44 or more seconds after the safety injection signal.

In the event that OP 4004.4 was being performed and both test push buttons were being pushed at the same time as the occurrence of a LOCA, the operators would release the two test buttons within 60 seconds of transient initiation. Release of the two buttons would allow the logic trains to fulfill their task, including consideration of a single failure.

Therefore, since the condition in which the plant is placed using OP 4004.4 is for only a few seconds, the assumption of a containment spray pump start 60 seconds after a transient is valid due to the restoration of the logic capability as soon as the test push buttons are released.

If OP 4004.4 was being performed and a LOCA occurred during steps other than 5a, 6a, 7a, 8a, 9a, and 10a, it is highly unlikely that these steps of the procedure would be performed by the operator after the start of a LOCA.

Based upon the above, the two logic trains would return to the normal configuration within a time which would allow containment spray pump starting by the emergency load sequencer prior to the assumed UFSAR Chapter 14 assumed safety analysis pump start time.

V. CORRECTIVE ACTIONS

1. Operating Procedure OP 4004.4, has been revised to remove the portion of steps 5, 6, 7, 8, 9, and 10 which called for the simultaneous actuation of both test buttons.

2. Other Technical Specification instrumentation test circuits and related procedures will be reviewed to ensure similar conditions do not exist. This review will be completed by January 31, 1996.

VI. ADDITIONAL INFORMATION

EIIS Codes are shown in the format [EIIS SYSTEM: IEEE component function identifier, second component function identifier (if appropriate)].