

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Turkey Point Unit 3

DOCKET NUMBER (2)

0 5 0 0 0 2 5 0 1 OF 0 2

PAGE (3)

TITLE (4)

Technical Specification Shutdown - Subcooling Margin Monitors

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	3	3	0	8	5	8	5	0	1	0	0	4	2	9	8	5	N/A	0	5	0	0	0	2	5	1
OPERATING MODE (9)		N		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)															
POWER LEVEL (10)		1		20.405(a)(1)(i)		50.36(e)(1)		50.73(a)(2)(v)		73.71(c)															
				20.405(a)(1)(ii)		50.36(e)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)															
				20.405(a)(1)(iii)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(A)																	
				20.405(a)(1)(iv)		50.73(a)(2)(iii)		50.73(a)(2)(viii)(B)																	
				20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)																	

LICENSEE CONTACT FOR THIS LER (12)

NAME

R. L. Teuteberg, Regulation and Compliance Engineer

TELEPHONE NUMBER

AREA CODE

3 0 5 2 4 5 1 - 2 9 1 1 0

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
B	I	B	T	E					
			P	4	2	7	Y		

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

**Event:** At 7:35 p.m., on March 30, 1985, a plant shutdown of Unit 3 was initiated for both a scheduled refueling outage and in accordance with the requirements of Technical Specification 3.5, Table 3.5-5, which defines the minimum operability requirements for the reactor subcooling margin monitoring instrumentation. This shutdown was initiated due to the potential for loss of operability of both independent channels of the Unit 3 reactor subcooling margin monitoring instrumentation. Because the reactor shutdown coincided with a scheduled refueling outage, the reactor was cooled down and placed in a refueling shutdown condition.

**Cause of Event:** The reason for both independent subcooling margin monitors being considered inoperable and for the subsequent plant shutdown was due to the failure of six reactor coolant system wide-range temperature elements to meet environmental qualification acceptance criteria.

**Corrective Actions:** Corrective actions which have been taken or are planned to ensure that the subject temperature elements have acceptable environmental qualifications include the following:

- 1) The Unit 4 reactor system temperature elements for the subcooling margin monitors were hermetically sealed on February 3, 1985, during the first convenient Unit 4 outage, as a precaution until the environmental qualifications of the temperature elements could be verified.
- 2) The Unit 3 subcooling margin monitor temperature elements will be hermetically sealed during the present refueling outage.
- 3) To enhance plant maintenance, the existing temperature elements will be replaced by environmentally pre-qualified temperature elements of a different manufacturer. This replacement will be completed for Units 3 and 4 during future refueling outages.

A Significant Event Notification was made to the NRCOC via the ENS pursuant to 10 CFR 50.72(b)(1)(i) concerning the shutdown of Unit 3. In addition, simultaneous notification of an Unusual Event was also made to the NRC via the ENS and State Warning Point via the Hot Ring Down Telephone. The health and safety of the public were not affected. Similar occurrences: None.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)  Turkey Point Unit 3	DOCKET NUMBER (2)  0 5 0 0 0 2 5 0 8 5 - 0 1 0 - 0 0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

**Event:**

At 7:35 p.m., on March 30, 1985, a plant shutdown of Unit 3 was initiated for both a scheduled refueling outage and in accordance with the requirements of Technical Specification 3.5, Table 3.5-5, which resulted from six reactor coolant system temperature elements being declared inoperable. The six temperature elements were declared inoperable due to the potential that they could fail if subjected to the elevated moisture and pressure levels during design basis events. These temperature elements provide the input signals to two independent channels of reactor subcooling margin monitors. This subcooling margin instrumentation is used to monitor the subcooled conditions in the primary system during both normal and off-normal operating evolutions. Because the reactor shutdown was initiated coincident with a scheduled refueling outage, the reactor was cooled down and placed in a refueling shutdown condition.

**Cause of Event:**

The reason for both independent subcooling margin monitoring channels being considered inoperable and for the subsequent plant shutdown was due to the failure of the six wide-range temperature elements to meet environmental qualification acceptance criteria. Pursuant to the requirements of 10 CFR 50.49, FPL and its contractors have established a program for the environmental qualification of electrical equipment. Under this program, the environmental qualifications of the subject temperature elements were reviewed in January 1985. During this review, it was found that inadequate documentation to conclusively demonstrate the qualifications of the temperature elements had been submitted and a further investigation was required. At the conclusion of this investigation on March 29, 1985, FPL's Power Plant Engineering determined that the environmental qualifications of the temperature elements were not adequate, and the plant management staff was immediately advised of this conclusion.

**Corrective Actions:**

Corrective actions which have been taken or are planned to ensure that the subject temperature elements have acceptable environmental qualifications include the following:

- 1) The Unit 4 reactor system temperature elements for the subcooling margin monitors were hermetically sealed with epoxy on February 3, 1985, during the first convenient Unit 4 outage. This action was taken as a precautionary measure until the environmental qualifications of the temperature elements could be verified through a subsequent investigation. The hermetic sealing of the temperature elements resulted in a repaired configuration which has been environmentally qualified for a duration of service which exceeds the end of plant life.
- 2) The Unit 3 subcooling margin monitor temperature elements will be hermetically sealed with epoxy during the present refueling outage. The hermetic sealing of the temperature elements will result in a repaired configuration which has been environmentally qualified for a duration of service which exceeds the end of plant life.
- 3) To enhance plant maintenance, the existing temperature elements will be replaced by environmentally pre-qualified temperature elements of a different manufacturer. This replacement will be completed for Units 3 and 4 during future refueling outages.



APR 29 1985

L-85-171

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

Gentlemen:

Re: Reportable Event 85-010  
Turkey Point Unit 3  
Date of Event: March 30, 1985  
Technical Specification Shutdown -  
Subcooling Margin Monitors

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

Very truly yours,

A handwritten signature in cursive script, appearing to read "J. W. Williams, Jr.", is written over a horizontal line.

J. W. Williams, Jr.  
Vice President  
Nuclear Energy Department

JWW/JA/awt/T14:5

Attachment

cc: Dr. J. Nelson Grace  
Harold F. Reis, Esquire

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