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ACCESSION NBR:8807280424 DOC.DATE: 88/07/20 NOTARIZED: NO DOCKET #
FACIL:50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
AUTH.NAME AUTHOR AFFILIATION
LEGETTE,F.L. Carolina Power & Light Co.
MORGAN,R.E. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-014-00:on 880624,failure to meet Tech Spec min degree of redundancy.

W/8 ltr.

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

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RIDS/ADDS

Enclosure to Serial: RNPD/88-3196

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)
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	0 5 0 0 0 2 6 1	1 OF 0 3

TITLE (4)

FAILURE TO MEET TECH. SPEC. MINIMUM DEGREE OF REDUNDANCY

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 6	2 4	8 8	8 8	0 1 4	0 0	0 7	2 0	8 8		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	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)	20.405(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
F. L. Legette, Senior Control Operator	AREA CODE 8 0 3 3 8 3 - 1 2 5 3

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	
X	J B	C A P		Y							

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)

Abstract

On June 24, 1988, at 0006 hours, while performing a surveillance test, licensee Maintenance personnel discovered that a LO-LO Steam Generator (SG) water level channel on "A" SG had failed due to a faulted capacitor. This failure resulted in a violation of Technical Specifications Table 3.5-2, Item 12, Column 2, Minimum Degree of Redundancy. The licensee Operations personnel immediately removed the defective channel from service. The licensee Maintenance personnel replaced the faulted capacitor in accordance with Maintenance instruction and the channel was returned to service at 0230 hours. This LER is submitted pursuant to 10CFR50.73(a)(2)(i)(B).

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2	0 5 0 0 0 2 6 1	8 8	— 0 1 4	— 0 0	0 2 OF 0 3

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

I. DESCRIPTION OF EVENT

On June 24, 1988, at 0006 hours, while performing a Maintenance Surveillance Test (MST), Maintenance personnel found a LO-LO Steam Generator (SG) water level channel failed in the non-conservative direction.[1,2] This failure resulted in a violation of Technical Specifications Table 3.5-2, Item 12, Column 2, Minimum Degree of Redundancy.[3] During performance of the MST, the channel was placed in the tripped mode which satisfied the minimum degree of redundancy requirement. When the channel was discovered to be faulted, the licensee Operations personnel removed the channel from service for maintenance, using standard plant operating procedure.

This LER is submitted pursuant to 10CFR50.73(a)(2)(i)(B).

II. CAUSE OF EVENT

The failure of the LO-LO SG water level channel was caused by a faulted capacitor in the comparator power supply for that channel.[4] The capacitor filters the channel's power supply so that a constant voltage will be maintained. The capacitor appeared to have failed due to normal electrolytic insulation breakdown over its operating life. The channel was last tested and verified operable on May 23, 1988. Due to the nature of the failure, the only method of detection is through performance of the MST. The MST is performed on a monthly interval to determine the operability of the SG water level protection channels.

III. ANALYSIS OF EVENT

The Lo-Lo SG water level reactor trip protects against loss of feedwater flow accidents. The reactor trip requires a two-out-of-three-channel LO-LO water level logic to actuate. With the channel failure in the non-conservative condition, the reactor trip logic was reduced to a two-out-of-two LO-LO-channel level logic to actuate. The non-conservative failure of one channel presented no significant hazard since two operable remaining channels are capable of actuating a reactor trip on an actual LO-LO SG water level signal.

1H. B. Robinson Steam Electric Plant, Unit No. 2 is a 700 Megawatt Westinghouse pressurized water reactor, in commercial operation since March 1971.
2MST-013, Revision 9, Steam Generator water level protection channel testing.
3Cause Code: X
4EIIS Codes: System - JB; Component - CAP; Manufacturer - Unknown

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2	0 5 0 0 0 2 6 1	8 8	— 0 1 4	— 0 0	0 3 OF 0 3

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

IV. CORRECTIVE ACTION

During performance of the surveillance test, the channel was placed in the tripped mode which satisfied the Technical Specifications minimum degree of redundancy requirement. When the channel was discovered to be faulted, the licensee Operations personnel removed the failed channel from service in accordance with standard Plant operating procedure. Maintenance personnel replaced the failed capacitor. The channel was verified operable and returned to service at 0230 hours. The MST was completed at 0513 hours. Although the capacitor appeared to have failed through normal wear, the licensee has included this failure in its Trend Analysis Program.[5] The purpose of the program is to perform systematic Maintenance trend analysis of equipment failures to determine if inadequacies of material, design, maintenance or operating practices exist.

V. ADDITIONAL INFORMATION

A. Failed Component Identification: Capacitor #C-2 Manufactured by Sprague Type Sprague TVA-1308+

B. Previous Similar Event
No similar LERs reported

5MMM-011, Revision 3, Trend Analysis.

CP&L
Carolina Power & Light Company

ROBINSON NUCLEAR PROJECT DEPARTMENT
POST OFFICE BOX 790
HARTSVILLE, SOUTH CAROLINA 29550

JUL 20 1988

Robinson File No: 13510C

Serial: RNPD/88-3196
(10 CFR 50.73)

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 88-014-00

Gentlemen:

The enclosed Licensee Event Report (LER) is submitted in accordance with 10 CFR 50.73 and NUREG-1022 including Supplements No. 1 and 2.

Very truly yours,

R. E. Morgan
General Manager
H. B. Robinson S. E. Plant

Enclosure

cc: Dr. J. N. Grace
Mr. L. W. Garner
INPO

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