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REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9205260009 DOC. DATE: 92/05/18 NOTARIZED: NO DOCKET #
 FACIL: 50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
 AUTH. NAME AUTHOR AFFILIATION
 CROOK, R.D. Carolina Power & Light Co.
 CHAMBERS, R.H. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 92-008-00: on 920421, determined that one of three narrow-range RTDs in hot leg of RCS did not meet TS requirements for time response. Caused by partial loss of thermal contact between RTD & thermowell. RDTs repaired. W/920518 ltr.

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 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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EXTERNAL:	EG&G BRYCE, J.H	3 3	L ST LOBBY WARD	1 1
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Carolina Power & Light Company

ROBINSON NUCLEAR PROJECT DEPARTMENT
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MAY 19 1992

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RNPD/92-1424
(10CFR50.73)

United States Nuclear Regulatory Commission
Attn: Document Control Desk
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT NO. 92-008-00

Gentlemen:

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

Very truly yours,

R. H. Chambers
General Manager

H. B. Robinson S. E. Plant

RDC:dwm

Enclosure

cc: Mr. S. D. Ebnetter
Mr. L. W. Garner
INPO

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PDR ADDCK 05000261
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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED ON: B NO. 3150-0104

EXPIRES: 4/30/92

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 6 1 1	PAGE (3) 1 OF 0 3
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TITLE (4)
FAILURE OF RTD TO MEET TECHNICAL SPECIFICATION LAG TIME REQUIREMENTS

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	4	21	9	2	008	0	5	18			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) 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)			
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)			
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)				
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)				
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)					

LICENSEE CONTACT FOR THIS LER (12)

NAME R. D. Crook, Senior Specialist - Regulatory Compliance	TELEPHONE NUMBER
	AREA CODE 8 0 3 3 8 3 - 1 1 7 9

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
B	A B	T W W	1 0 8	Y					

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO			

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

On April 21, 1992, with H. B. Robinson Unit No. 2 in cold shutdown for refueling, it was determined that one of the three active Narrow Range Resistance Temperature Detectors (RTD) in the hot leg of the Reactor Coolant System did not meet the Technical Specification 2.3.3 requirements for time response. The cause of this condition is attributed to a partial loss of the thermal contact between the RTD and its thermowell.

The RTD will be repaired prior to heatup and retested at hot shutdown conditions to demonstrate compliance with the Technical Specifications. This report is submitted pursuant to 10CFR50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 2	- 0 0 8	- 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 April 21, 1992, with H. B. Robinson Unit No. 2¹ in cold shutdown condition for a scheduled refueling outage, licensee engineering personnel determined that one of the three active Narrow Range Resistance Temperature Detectors (RTD)² in the Hot Leg of Reactor Coolant System Loop "A" did not meet the Technical Specification 2.3.3 requirement for "less than or equal to a 4.0 second lag time constant." Dual element, fast response RTDs are used to monitor the narrow range Reactor Coolant System temperatures. One element is designated as the active element and is connected to the reactor protection and control circuitry; the second element is used as an installed spare. Surveillance testing determined that the response time for the active RTD element, TE-412B1, was 4.2 seconds, which is outside of the Technical Specification requirements. The spare element for this location, TE-411D1, also failed to meet the Technical Specification limit with a response time of 4.1 seconds.

The surveillance test data was collected by a contractor on March 24-26, 1992 while the plant was operating at 95% power. The plant was shutdown for its refueling outage on March 28, 1992. The results of the data analysis were received and evaluated by the licensee on April 21, 1992. The NRC was notified of this condition via the ENS on April 23, 1992, at 1058 hours. This notification was considered an information report pursuant to 10CFR50.36(c)(1)(ii)(A)

II. CAUSE OF EVENT

An Adverse Condition Report³ was initiated in accordance with the Corrective Action Program, and an investigation to determine the cause of this event is currently underway. Although the investigation is not yet complete, it is believed that the longer response times are due to a partial loss of thermal contact between the RTD and its thermowell. Therefore, the cause of the condition is currently attributed to component failure.

¹H. B. Robinson Steam Electric Plant, Unit No. 2, is a Westinghouse Pressurized Water Reactor in commercial operation since March, 1971.

² EIIS Codes: System: AB; Component: TW; Manufacturer: W108

³ Adverse Condition Report 92-111

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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					0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 305A's) (17)

III. ANALYSIS OF EVENT

This report is submitted pursuant to 10CFR50.73(a)(2)(i)(B) as an operation or condition prohibited by the plant's Technical Specifications.

TE-412B1 is one of three RTDs which are used to compute an average Hot Leg temperature for Loop A of the Reactor Coolant System. The average Hot Leg temperature is then used in conjunction with the Cold Leg temperature to calculate Tave and Delta-T for the loop. The Tave and Delta-T signals are used as inputs into the Overtemperature Delta-T and Overpower Delta-T Reactor Protection logics. The slower RTD response time would cause a slight delay in the actuation of these protection logics in the event of rapid temperature excursion in the Reactor Coolant System. It should be recognized that the response of the average Hot Leg temperature to a temperature excursion in the Reactor Coolant System is a function of all three Hot Leg RTDs and in general, will not be as slow as the slowest RTD. Therefore, the system would have functioned as required, and there was no adverse impact on plant safety.

IV. CORRECTIVE ACTIONS

Since the plant was shutdown for refueling at the time it was determined that the RTD had exceeded the Technical Specification limit, no immediate actions were required due to the RTD being inoperable. The RTD will be repaired prior to heatup and retested at Hot Shutdown conditions to demonstrate compliance with the Technical Specifications.

IV. ADDITIONAL INFORMATION

A. Previous Similar Events:

None

B. Failed Component Information:

The RTD is Weed Model N9004E-2B Dual Fast Time Response Tapered Tip RTD Assembly.