

W 05/11/78

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)  
DISTRIBUTION FOR INCOMING MATERIAL 50-261

REC: OREILLY J P  
NRC

ORG: BANKS H R  
CAROLINA PWR & LIGHT

DOCDATE: 05/01/78  
DATE RCVD: 05/10/78

DOCTYPE: LETTER NOTARIZED: NO  
SUBJECT:

COPIES RECEIVED  
LTR 1 ENCL 1

FORWARDING LICENSEE EVENT REPT (RO 50-261/78-007) ON 04/01/78 CONCERNING ONE  
OF TWO REDUNDANT RELAYS USED TO TRIP THE REACTOR COOLANT PUMP, FAILED TO  
OPERATE WHEN 4KV BUSES 2 & 4 UNDER FREQUENCY RELAYS WERE TRIPPED... W/ATT.

PLANT NAME: H B ROBINSON - UNIT 2

REVIEWER INITIAL: XJM  
DISTRIBUTOR INITIAL: *m*

\*\*\*\*\* DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS \*\*\*\*\*

INCIDENT REPORTS  
(DISTRIBUTION CODE A002)

FOR ACTION: BR CHIEF ~~SCHWENGER~~\*\*W/4 ENCL

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HANAUER\*\*W/ENCL  
EISENHUT\*\*W/ENCL  
SHAO\*\*W/ENCL  
KREGER/J. COLLINS\*\*W/ENCL  
K SEYFRIT/IE\*\*W/ENCL

NRC PDR\*\*W/ENCL  
MIPC\*\*W/3 ENCL  
HOUSTON\*\*W/ENCL  
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BUTLER\*\*W/ENCL  
TEDESCO\*\*W/ENCL  
BAER\*\*W/ENCL  
VOLLMER/BUNCH\*\*W/ENCL  
ROSA\*\*W/ENCL

EXTERNAL: LPDR'S  
HARTSVILLE, SC\*\*W/ENCL  
TIC\*\*W/ENCL  
NSIC\*\*W/ENCL  
ACRS CAT B\*\*W/16 ENCL

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REGULATORY GUIDE 10.1

DISTRIBUTION: LTR 45 ENCL 45  
SIZE: 1P+1P+2P

CONTROL NBR: 781310010

\*\*\*\*\* THE END \*\*\*\*\*



Carolina Power &amp; Light Company

May 1, 1978

RECEIVED DISTRIBUTION  
SERVICES UNIT  
MAY 10 AM 11 39  
78 NUC  
GEN SERVICE  
UNIT

FILE: NG-3516 (R)

SERIAL: GD-78-1213

Mr. James P. O'Reilly, Director  
U. S. Nuclear Regulatory Commission  
Region II, Suite 1217  
230 Peachtree Street, N.W.  
Atlanta, Georgia 30303

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET 50-261  
LICENSE NO. DPR-23  
LICENSEE EVENT REPORT 78-07

Dear Mr. O'Reilly:

In accordance with Section 6.9.2.b of the Technical Specifications for the H. B. Robinson Steam Electric Plant, Unit 2, the attached Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-0161, July, 1977.

Yours very truly,

H. R. Banks  
Manager  
Nuclear Generation

DCS:tme\*

Attachment

cc: Messrs. R. A. Hartfield  
E. Volgenau

781310010

A002  
5/1

# LICENSEE EVENT REPORT

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | 5 | C | H | B | R | 2 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | | | 5

7 8 9 14 15 25 26 30 57 CAT 58

LICENSEE CODE LICENSE NUMBER LICENSE TYPE

CON'T

0 1 | L | 6 | 0 | 5 | 0 | 0 | 0 | 2 | 6 | 1 | 7 | 0 | 4 | 0 | 1 | 7 | 8 | 8 | 0 | 5 | 0 | 1 | 7 | 8 | 9

7 8 60 61 68 69 74 75 80

REPORT SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

### EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | During periodic refueling underfrequency testing of the 4KV Busses, one of the two

0 3 | redundant relays used to trip the Reactor Coolant Pumps, failed to operate when

0 4 | 4KV Busses 2 and 4 under frequency relays were tripped. This event had no adverse

0 5 | effects on plant safety since the Reactor Coolant Pump trip would occur from

0 6 | operation of the redundant relay. No previous failures of this type have occurred.

0 7 | HBR 2 Reportable Occurrence 78-07.

08		9		SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE		COMP. SUBCODE		VALVE SUBCODE							
7	8	9		C	B	11	E	12	G	13	R	E	L	A	Y	X					
7	8	9		10		11		12		13						15	A	16	Z	20	
(17) LER/RO REPORT NUMBER		EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.											
7		8		0		0		7		0		3		L		0					
21		22		23		24		26		27		28		29		30		31		32	
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER					
B	18	Z	19	Z	20	Z	21	0	0	0	0	Y	23	Y	24	N	25	W	1	2	0
33	34	35		36		37		38		39		40		41		42		43		44	

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Failure of the relay to operate was caused by a loose contact on an initiating relay

1 1 in the 4KV Buss 2 circuitry. The looseness of the contact prevented the closing of

1 2 contact terminals which in turn caused trip relay 81 x 1 not to energize. The loose

1 3 contact was tightened and all other 4KV bus relay contacts were checked for tightness.

7 8 9

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

FACILITY STATUS (28) H 1 5

% POWER 0 0 0 (29)

OTHER STATUS (30) NA

METHOD OF DISCOVERY (31) B

DISCOVERY DESCRIPTION (32) Periodic Testing

ACTIVITY CONTENT  
RELEASED OF RELEASE AMOUNT OF ACTIVITY (35)  
1 6 Z 33 Z 34 NA  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

PERSONNEL EXPOSURES									
NUMBER			TYPE	DESCRIPTION					
1	7	0	0	0	(37)	Z	(38)	NA	

PERSONNEL INJURIES	
NUMBER	DESCRIPTION
00040	NA

7	8	9	11	12	
LOSS OF OR DAMAGE TO FACILITY (43)					
TYPE DESCRIPTION					
1	9	Z	(42)	NA	

7		8	9	10											8
		PUBLICITY													
ISSUED		DESCRIPTION													NRC USE ONLY
2 0		N (44)			<div style="border: 1px solid black; padding: 2px;">             NA           </div>										

NAME OF PREPARER

R. B. Starkey, Jr.

PHONE: (803) 332-1351

SUPPLEMENTAL INFORMATION  
FOR  
REPORTABLE OCCURRENCE 78-07

1. REPORT NUMBER: 50-261/78-07
- 2a. REPORT DATE:
- 2b. OCCURRENCE DATE: April 1, 1978
3. FACILITY: H. B. Robinson Unit No. 2  
Hartsville, South Carolina, 29550
4. IDENTIFICATION OF OCCURRENCE: On April 1, 1978, while performing periodic underfrequency testing of the 4KV Busses, it was discovered that one of the two redundant Reactor Coolant Pump (RCP) trip relays (81 x 1) failed to energize when Busses 2 and 4 underfrequency relays were tripped. This constitutes a reportable occurrence in accordance with Technical Specification 6.9.2.b.1.
5. CONDITIONS PRIOR TO OCCURRENCE: The plant was at hot shutdown following a refueling outage. Refueling Interval Periodic Test CPL-PT-6.1, 4KV Bus Underfrequency Test, was in progress.
6. DESCRIPTION OF OCCURRENCE: On April 1, 1978, while performing underfrequency testing of the 4KV Busses, it was discovered that relay 81 x 1 failed to energize when Busses 2 and 4 underfrequency relays were tripped. Further inspection revealed that a contact on relay 811 x 1/2 of Bus 2 was loose and failed to close when energized. The failure of this contact to close prevented relay 81 x 1 from energizing. The contact was tightened and all other relay contacts associated with this circuitry were checked for tightness. Subsequent testing showed that both relays would energize when Busses 2 and 4 underfrequency relays were tripped.
7. DESIGNATION OF APPARENT CAUSE OF OCCURRENCE: Examination of the relays associated with the RCP trip circuitry revealed a loose contact bar in one of the initiating relays. A screw which holds the contact bar in place was found loose. No apparent cause for the loose screw was identified.
8. ANALYSIS OF OCCURRENCE: Due to the redundant tripping system of the 4KV Busses, the failure of the one relay did not prevent the Reactor Coolant Pumps from tripping. The loose contact did not result in any adverse effects to plant operation or public safety, nor did it constitute violation of a limiting condition for operation.

9. CORRECTIVE ACTION: The loose contact on the initiating relay was tightened and all other associated relay contacts were checked for tightness. A new underfrequency test, which resulted in identification of the loose contact above, will provide periodic relay surveillance of the above relays to minimize recurrence of the above event.
10. FAILURE DATA: No previous failures of this type have been reported.