

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8104130390 DOC.DATE: 81/04/03 NOTARIZED: NO DOCKET #
 FACIL:50-261 H. B. Robinson Plant, Unit 2, Carolina Power and Light 05000261
 AUTH.NAME AUTHOR AFFILIATION
 GILMAN,F.M. Carolina Power & Light Co.
 RECIP.NAME RECIPIENT AFFILIATION
 Region 2, Atlanta, Office of the Director

SUBJECT: LER 81-010/01T-0:on 810322,control rod N-9 determined to be inoperable.Caused by bad connecting ring on power supply connector to lift coil.Connector replaced.

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 TITLE: Incident Reports

NOTES:

ACTION:	RECIPIENT ID CODE/NAME	COPIES		RECIPIENT ID CODE/NAME	COPIES	
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	VARGA,S. 04	3	3			
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	A/D PLANT SYS10	1	1	A/D RAD PROT 11	1	1
	A/D SFTY ASSE12	1	1	ACC EVAL BR 14	1	1
	AEOD	3	3	AEOD/DMU	3	3
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	CHEM ENG BR 16	1	1	CONT SYS BR 17	1	1
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	EFF TR SYS BR23	1	1	EQUIP QUAL BR25	1	1
	GEOSCIENCES 26	1	1	I&C SYS BR 29	1	1
	I&E 05	1	1	JORDAN,E./IE	1	1
	LIC GUID BR 30	1	1	MATL ENG BR 32	1	1
	MECH ENG BR 33	1	1	MPA	3	3
	NRC PDR 02	1	1	OP EX EVAL BR34	3	3
	OR ASSESS BR 35	1	1	POWER SYS BR 36	1	1
	RAD ASSESS BR39	1	1	REACT SYS BR 40	1	1
	<u>REG FILE</u> 01	1	1	REL & RISK A 41	1	1
	SFTY PROG EVA42	1	1	STRUCT ENG BR44	1	1
	SYS INTERAC B45	1	1			
EXTERNAL:	ACRS 46	16	16	LPDR 03	1	1
	NSIC 05	1	1			

APR 14 1981

TOTAL NUMBER OF COPIES REQUIRED: LTTR 68 ENCL 68

123

LICENSEE EVENT REPORT

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1	S	C	H	B	R	2	2	0	0	-	0	0	0	0	0	-	0	0	3	4	1	1	1	1	4			5	
7	8	LICENSEE CODE						14	15	LICENSE NUMBER										25	26	LICENSE TYPE				30	57	CAT		58

CON'T

REPORT SOURCE L 6 0 5 0 0 0 2 6 1 7 0 3 2 2 8 1 8 0 4 0 3 8 1 9

7 8 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | On March 22, 1981 at approximately 0700 with the unit at 95% power, a problem with
0 3 | control rod N-9 was discovered while performing PT-21.2 "Rod Cluster Control Exercise
0 4 | and Rod Position Indication". After an investigation it was determined N-9 would not
0 5 | move because the lift coil was being continuously de-energized. This does not prevent
0 6 | rod drop on a reactor trip signal and so there was no threat to public health and
0 7 | safety. Since control rod L-11 was already inoperable this event is contrary to
0 8 | Technical Specification 3.10.6.2 which is reportable pursuant to 6.9.2.a.2.

09		SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE				COMP. SUBCODE		VALVE SUBCODE					
7	8	R	B	E		A		I	N	S	T	R	U	P	Z				
		9	10	11	12	13		14					15	16					
17		EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.									
LER/RO REPORT NUMBER		8	1		0	1	0		0	1	T	0							
		21	22	23	24	25	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			
A	Z	A		A					0	0	0	3	Y	Y	N	C	7	2	0
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 When the control rod was determined to be inoperable a unit shutdown was immediately
1 1 commenced. The cause of failure was a bad connecting ring on the power supply
1 2 connector to the lift coil. This prevented power from being applied to the lift coil
1 3 and so the control rod would not move. The connector was replaced and the control
1 4 rod tested and returned to service.

FACILITY STATUS		% POWER		OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION				
1	5	E	28	0	9	5	29	N/A	B	31	Discovered during PT-21.2	32

ACTIVITY CONTENT
RELEASED OF RELEASE

1	6	Z	33	Z	34	AMOUNT OF ACTIVITY (35) N/A		LOCATION OF RELEASE (36) N/A	
7	8	9	10	11	12	13	14	15	16

PERSONNEL EXPOSURES		NUMBER		TYPE		DESCRIPTION	
1	7	0	0	0	37	Z	38
						N/A	

PERSONNEL INJURIES		NUMBER		DESCRIPTION	
1	3	0	0	0	N/A

		LOSS OF OR DAMAGE TO FACILITY		(43)
		TYPE	DESCRIPTION	
1	9	Z	(42) N/A	

10
 9
 8
 7
 6
 5
 4
 3
 2
 1
 0
 PUBLICITY
 ISSUED DESCRIPTION (45)
 (2) (0) (N) (44) N/A
 NRC USE ONLY

8 9 10
8104130390

NAME OF PREPARER Frank M. Gilman

PHONE: (803) 383-4524

NRC USE ONLY

-BO 917.926

SUPPLEMENTAL INFORMATION
FOR
LICENSEE EVENT REPORT 81-010

1. Cause Description and Analysis

On March 22, 1981 at approximately 0700 with the unit at 95% power a problem with control rod N-9 was discovered while performing PT-21.2 "Rod Cluster Control Exercise and Rod Position Indication". I&C technicians were called in to determine whether the rod drive mechanism or the rod position indication system was malfunctioning. After performing several tests on the rod it was determined that the control rod drive mechanism (CRDM) lift coil was continuously de-energized which prevented the rod from moving. The failure was due to a bad connecting pin lock ring on the power supply connector to the lift coil. It is suspected that the problem resulted at the time the connector was last assembled (October, 1980) and was the result of improper meshing of the connector elements. The control rod had been exercised since that time, therefore, a period of time was required before the problem became apparent. This type of failure would not prevent the rod from dropping into the core on a reactor trip signal. In fact the rod did drop when shutdown was completed and the reactor trip breakers were opened. For this reason this event did not constitute a threat to the public health and safety. Since control rod L-11 was already inoperable the failure of N-9 was the second inoperable rod and so was contrary to Technical Specification 3.10.6.2. which is reportable pursuant to 6.9.2.a.2.

2. Corrective Action

When control rod N-9 was determined to be inoperable a reactor shutdown was immediately commenced at a rate of 1%/min. With the reactor at hot shutdown the electrical power connector to the CRDM coils on N-9 was replaced. The control rod was then tested and returned to service.

3. Corrective Action To Prevent Recurrence

The type of connector used (Crouse-Hinds No. RPE-003-023S) requires considerable care when reassembling to assure proper meshing of the connector and, although problems can occur, problems during installation are generally identified at the time of reassembly or shortly after. In this particular case the problem did not become apparent until some time later. Although there is no reason to believe anything improper occurred during installation, this LER will be reviewed by I&C personnel as an additional reminder of the sensitivity of this operation and the additional care required during the reassembly operation. No further action regarding this event is believed necessary at this time.