NRC FORM 196 (2-76) U.S. NUCLEAR REGULATORY COMMISSION

DOCKET NUMBER: 50-261

FILE NUMBER: INCIDENT REPORT

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

TO:	FROM:	DATE OF DOCUMENT
Mr. Norman C. Moseley	Carolina Power & Light Company Raleigh, North Carolina H. R. Banks	8/31/76
		DATE RECEIVED: 9/3/76

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DESCRIPTION

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PLANT NAME:

H. B. Robinson #2

ENCLOSURE

Licensee Event Report (RO 50-261/76-15) on 8/17/76 concerning Auxiliary Feedwater Pump Discharge Valve V2-16A failing to open as required while performing Auxiliary Feedwater PT-22 at 100% power.

(3-P)

NOTE: IF PERSONNEL EXPOSURE IS INVOLVED SEND DIRECTLY TO KREGER/J..COLLINS

FOR ACTION/INFORMATION 9/8/76 RJL

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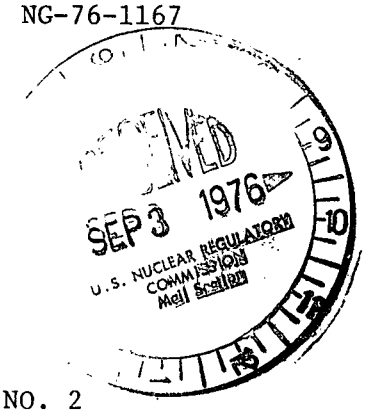
CONTROL NUMBER: 8993

CP&L

Carolina Power & Light Company

August 31, 1976

FILE: NG-3513 (R) SERIAL: NG-76-1167



Mr. Norman C. Moseley, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 818
230 Peachtree Street, N.W.
Atlanta, Georgia 30303

Dear Mr. Moseley:

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 76-15

In accordance with Section 6.9.2.a 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 fourteen (14) days of a reportable occurrence and is in accordance with the format set forth in Regulatory Guide 1.16, Revision 4.

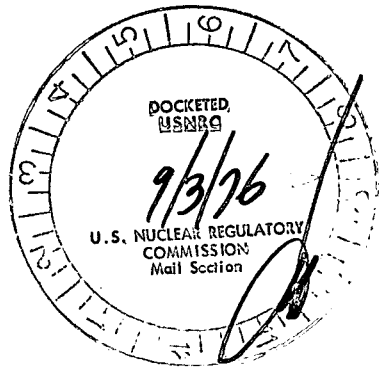
Yours very truly,

H. R. Banks
Manager
Nuclear Generation

CSB:ku

Attachment

cc: Messrs. W. G. McDonald
E. Volgenau



8993

LICENSEE EVENT REPORT

CONTROL BLOCK: [ ] (1–6)

[PLEASE PRINT ALL REQUIRED INFORMATION]

	LICENSEE NAME	LICENSE NUMBER	LICENSE TYPE	EVENT TYPE
01	SCHBR2	00-00000-00	41110	01
(7–8, 9–14)		(15–25)	(26–30)	(31–32)

	CATEGORY	REPORT TYPE	REPORT SOURCE	DOCKET NUMBER	EVENT DATE	REPORT DATE
01 CON'T		T	L	05000261	081776	083176
(7–8)	(57–58)	(59)	(60)	(61–68)	(69–74)	(75–80)

EVENT DESCRIPTION

02 While performing Auxiliary Feedwater PT-22 at 100% power, Auxiliary Feedwater Pump
03 Discharge Valve V2-16A failed to open as required. The redundant auxiliary feedwater
04 pump discharge valve operated properly. Valve appeared to be binding, was eventually
05 manually operated then properly electrically operated subsequently. Larger capacity
06 motors for valve operators will be installed. (HBR-2 RO 76-15)

	SYSTEM CODE	CAUSE CODE	COMPONENT CODE	PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER	VIOLATION
07	CH	B	VALVOP	N	L200	Y
(7–8, 9–10)		(11)	(12–17)	(43)	(44–47)	(48)

CAUSE DESCRIPTION

08 Limitorque Valve operator failed to open Auxiliary Feedwater Disch. Valve violating
09 Tech Spec 3.4.1.(d). Valve binded to seat. More pull-out torque is required. Valve
10 binding temporarily is alleviated. Permanent fix will be to install larger capacity.

	FACILITY STATUS	% POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION
11	E	100	NA	A	NA
(7–8)	(9)	(10–12)	(13–44)	(45)	(46–80)

	FORM OF ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY	LOCATION OF RELEASE
12	Z	Z	NA	NA
(7–8)	(9)	(10)	(11–44)	(45–80)

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION
13	000	Z	NA
(7–8)	(9–11)	(12)	(13–80)

PERSONNEL INJURIES

	NUMBER	DESCRIPTION
14	000	NA
(7–8)	(9–11)	(12–80)

OFFSITE CONSEQUENCES

15 NA

LOSS OR DAMAGE TO FACILITY

	TYPE	DESCRIPTION
16	Z	NA
(7–8)	(9)	(10–80)

PUBLICITY

17 NA

ADDITIONAL FACTORS

18

19 (Cause Description Cont'd) valve operator motors.

NAME: J. B. McGirt PHONE: 803-332-1351

GPO 881-667

Supplementary Information For
Reportable Occurrence 76-15

1. Report No: 50-261/76-15

2a. Report Date: August 31, 1976

2b. Occurrence Date: August 17, 1976

3. Facility: H. B. Robinson Unit No. 2
Hartsville, South Carolina 29550

4. Identification of Occurrence:

At 1805 hours on August 17, 1976, while performing Auxiliary Feedwater PT-22 at 100% power, the Auxiliary Feedwater pump discharge valve V2-16A failed to open as commanded. This is a violation of paragraph 3.4.1.(d) of the Technical Specification and constitutes a reportable occurrence in accordance with Technical Specification paragraph 6.9.2.a.5.

5. Conditions Prior to Occurrence

No unusual conditions prevailed prior to the occurrence. The plant was at steady state and 100% power level. No Auxiliary Feedwater pumps were in operation and the Auxiliary Feedwater pump discharge valves were in their normally closed position.

6. Description of the Occurrence

At 1805 hours on August 17, 1976, the Auxiliary Feedwater pump discharge valve V2-16A failed to open when commanded while performing step 7.1 of Auxiliary Feedwater PT-22. The valve operator motor energized and attempted to open the valve. This attempt provided dual indication of red and green lights energized at the RTGB thus indicating slight movement of the valve's limit switch. However, the valve disc was binding on its seat and there was not enough pull out torque provided by the valve operator motor to overcome the binding friction and lift the valve disc off its seat. Thus, there was no movement of the valve stem when the valve was commanded to open.

An overcurrent condition in the valve operator motor circuit was created by the failed attempt to open the valve. This caused the motor circuit breaker to open. The breaker was reclosed and another attempt was made to open the valve with the same results.

An attempt was then made to open the valve manually. There was too much resistance to handwheel movement to manually open the valve.

At 1827 hours "B" Auxiliary Feedwater Pump was started, and the valve was then partially opened manually. Later the valve was cycled with the pump secured. A large amount of backflow was experienced from "A" Steam Generator when the valve was opened. Subsequently, the valve was cycled two additional times and was declared in service at 1830 hours.

7. Designation of Apparent Cause of Occurrence

The cause of the occurrence can be attributed to insufficient pull out torque developed by Valve V2-16A motor operator. The motor operator did not have enough torque capacity to overcome valve seat friction.

8. Analysis of Occurrence

The occurrence could have been avoided if a larger torque capacity motor were installed on the valve operator.

9. Corrective Action

The existing 10 ft. lb. motors installed on all three of the Auxiliary Feedwater pump discharge valve operators will be replaced by 15 ft. lb. motors. Calculations have been performed by the valve operator manufacturer to substantiate the necessity for installation of the 15 ft. lb. motors.

CP&L
Carolina Power & Light Company

August 31, 1976

FILE: NG-3513 (R) SERIAL: NG-76-1167

Mr. Norman C. Moseley, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 818
230 Peachtree Street, N.W.
Atlanta, Georgia 30303

Dear Mr. Moseley:

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 76-15

In accordance with Section 6.9.2.a 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 fourteen (14) days of a reportable occurrence and is in accordance with the format set forth in Regulatory Guide 1.16, Revision 4.

Yours very truly,

Harold R Banks

H. R. Banks
Manager
Nuclear Generation

CSB:ku

Attachment

cc: Messrs. W. G. McDonald
E. Volgenau

336 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

CENSEE EVENT REPORT

CONTROL BLOCK: [ ] (1–6)

[PLEASE PRINT ALL REQUIRED INFORMATION]

01	LICENSEE NAME	LICENSE NUMBER	LICENSE TYPE	EVENT TYPE
	SCHBR2 (7–8 9–14)	00-00000-00 (15–25)	4110 (26–30)	01 (31–32)

01 CON'T	CATEGORY	REPORT TYPE	REPORT SOURCE	DOCKET NUMBER	EVENT DATE	REPORT DATE
	[ ] (57–58)	T (59)	L (60)	050-0261 (61–68)	081776 (69–74)	083176 (75–80)

EVENT DESCRIPTION

02 While performing Auxiliary Feedwater PT-22 at 100% power, Auxiliary Feedwater Pump (7–8 9–80)

03 Discharge Valve V2-16A failed to open as required. The redundant auxiliary feedwater (7–8 9–80)

04 pump discharge valve operated properly. Valve appeared to be binding, was eventually (7–8 9–80)

05 manually operated then properly electrically operated subsequently. Larger capacity (7–8 9–80)

06 motors for valve operators will be installed. (HBR-2 RO 76-15) (7–8 9–80)

07	SYSTEM CODE	CAUSE CODE	COMPONENT CODE	PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER	VIOLATION
	CH (9–10)	B (11)	VALVOP (12–17)	N (43)	L200 (44–47)	Y (48)

CAUSE DESCRIPTION

08 Limitorque Valve operator failed to open Auxiliary Feedwater Disch. Valve violating (7–8 9–80)

09 Tech Spec 3.4.1.(d). Valve binded to seat. More pull-out torque is required. Valve (7–8 9–80)

10 binding temporarily is alleviated. Permanent fix will be to install larger capacity. (7–8 9–80)

11	FACILITY STATUS	% POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION
	E (9)	100 (10–12)	NA (13–44)	A (45)	NA (46–80)

12	FORM OF ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY	LOCATION OF RELEASE
	Z (9)	Z (10)	NA (11–44)	NA (45–80)

PERSONNEL EXPOSURES

13	NUMBER	TYPE	DESCRIPTION
	000 (9–11)	Z (12)	NA (13–80)

PERSONNEL INJURIES

14	NUMBER	DESCRIPTION
	000 (9–11)	NA (12–80)

OFFSITE CONSEQUENCES

15 NA (7–8 9–80)

LOSS OR DAMAGE TO FACILITY

16	TYPE	DESCRIPTION
	Z (9)	NA (10–80)

PUBLICITY

17 NA (7–8 9–80)

ADDITIONAL FACTORS

18 [ ] (7–8 9–80)

19 (Cause Description Cont'd) valve operator motors. (7–8 9–80)

NAME: J. B. McGirt PHONE: 803-332-1351

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Reportable Occurrence 76-15

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2b. Occurrence Date: August 17, 1976

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5. Conditions Prior to Occurrence

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6. Description of the Occurrence

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An overcurrent condition in the valve operator motor circuit was created by the failed attempt to open the valve. This caused the motor circuit breaker to open. The breaker was reclosed and another attempt was made to open the valve with the same results.

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