NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 8094

FILE: INCIDENT REPORT FILE

FROM: Carolina Power & Light Co. Raleigh, N.C. 27602 E.E. Utley	DATE OF DOC 7-25-75	DATE REC'D 7-30-75	LTR XX	TWX	RPT	OTHER
TO: Mr. Norman C. Moseley	ORIG	CC 1	OTHER	SENT AEC PDR XX SENT LOCAL PDR XX		
CLASS UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-261		

DESCRIPTION: Ltr trans the following:

ENCLOSURES: Abnormal Occurrence AO-50-261/75-14 on 7-15-75 re valve V2-14B steam driven auxiliary feedwater pump discharge to "B" steam generator failed to-open...

(1 cy encl rec'd)

ACKNOWLEDGED

DO NOT Remove

PLANT NAME: H.B. Robinson Unit 2

FOR ACTION/INFORMATION DHL 8-4-75

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies
CLARK (L) W/ Copies	STOLZ (L) W/ Copies	DICKER (E) W/ Copies	LEAR (L) W/ Copies
PARR (L) W/ Copies	VASSALLO (L) W/ Copies	KNIGHTON (E) W/ Copies	SPELS W/ Copies
KNIEL (L) W/ Copies	PURPLE (L) W/ Copies	YOUNGBLOOD (E) W/ Copies	

INTERNAL DISTRIBUTION

REG FILE	TECH REVIEW	DENTON	LIC ASST	A/T IND
NRC PDR	SCHROEDER	** GRIMES	R. DIGGS (L)	BRAITMAN
OGC, ROOM P-506A	MACCARY	GAMMILL	H. GEARIN (L)	SALTZMAN
GOSSICK/STAFF	KNIGHT	KASTNER	E. GOULBOURNE (L)	MELTZ
CASE	PAWLICKI	BALLARD	P. KREUTZER (E)	
GIAMBUSSO	SHAO	SPANGLER	J. LEE (L)	PLANS
BOYD	** STELLO		M. RUSHBROOK (L)	MCDONALD
MOORE (L)	** HOUSTON	ENVIRO	S. REED (E)	CHAPMAN
DEYOUNG (L)	** NOVAK	MULLER	M. SERVICE (L)	DUBE (Ltr)
SKOVHOLT (L)	ROSS	DICKER	S. SHEPPARD (L)	E. COUPE
GOLLER (L) (Ltr)	IPPOLITO	KNIGHTON	M. SLATER (E)	PETERSON
P. COLLINS	TEDESCO	YOUNGBLOOD	H. SMITH (L)	HARTFIELD (2)
DENISE	J. COLLINS	REGAN	S. TEETS (L)	KLECKER
REG OPR	LAINAS	PROJECT LDR	G. WILLIAMS (E)	EISENHUT
FILE & REGION (2)	BENAROYA		V. WILSON (L)	WIGGINTON
MIPC/PE (3)	VOLLMER	HARLESS	R. INGRAM (L)	F. WILLIAMS
STEELE			M. DUNCAN (E)	HANAUER

EXTERNAL DISTRIBUTION

A/D ✓ LL

- 1 – LOCAL PDR Hartville, S.C.
- 1 – TIC (ABERNATHY) (1)(2)(10) – NATIONAL LABS _____
- 1 – NSIC (BUCHANAN) 1 – W. PENNINGTON, Rm E-201 GT
- 1 – ASLB 1 – CONSULTANTS NEWMARK/BLUME/AGBABIAN
- 1 – Newton Anderson
- 5 – ACRS SENT TO LIC ASST S. Teets 8-4-75
- ** SEND ONLY TEN DAY REPORTS

- 1 – PDR-SAN/LA/NY
- 1 – BROOKHAVEN NAT LAB
- 1 – G. ULRIKSON, ORNL
- 1 – AGMED (RUTH GUSSMAN) Rm B-127 GT
- 1 – J. D. RUNKLES, Rm E-201 GT

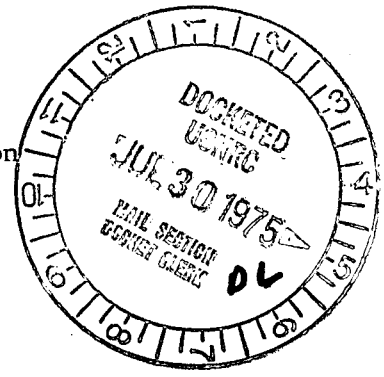
50-261

CP&L

Carolina Power & Light Company

July 25, 1975

FILE: NG-3513 (R) SERIAL: NG-75-1158



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 UNIT NO. 2
LICENSE NO. DPR-23
FAILURE OF AUXILIARY FEEDWATER PUMP DISCHARGE VALVE V2-14B

In accordance with Section 6.6.2.a of the Technical Specification for H. B. Robinson Unit No. 2, the attached Abnormal Occurrence Report is submitted for your information. This report fulfills the requirement for a written report within ten days of an Abnormal Occurrence and is in accordance with the format set forth in Regulatory Guideline 1.16, Revision 1.

Yours very truly,

E. E. Utley
Vice President
Bulk Power Supply

DBW:pn

Attachment

cc: Mr. N. B. Bessac
Mr. P. W. Howe
Mr. J. A. Jones
Mr. R. E. Jones
Mr. W. B. Kincaid
Mr. D. Knuth
Mr. J. B. McGirt
Mr. D. B. Waters

8084

8084

Abnormal Occurrence Report

1. Report No. 50-261/75-14

2a. Report Date July 21, 1975

2b. Occurrence Date July 15, 1975

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

4. Identification of Occurrence

Valve V2-14B Steam Driven Auxiliary Feedwater Pump Discharge to "B" Steam Generator failed to open. This constitutes an abnormal occurrence as defined in Technical Specification paragraph 1.8.d.

5. Conditions Prior to Occurrence

The plant was operating at 100% reactor power with all conditions normal. PT-22 "Auxiliary Feedwater System" (monthly) was being performed.

6. Description of Occurrence

On July 15, 1975, at 2108 hours during the performance of PT-22 an attempt was made to open V2-14B. On the first attempt the valve failed to open and was found to be on its seat with the Limitorque operator relayed out on thermal overload.

The thermal overload was reset and the valve subsequently operated satisfactorily two times. On a fourth attempt the thermal overload on the operator was again tripped and the valve failed to open. The valve was then declared out of service, and an I&C Technician was called to investigate. The technician reset the thermal overload on the operator and adjusted the torque switch. The valve was then test operated satisfactorily several times and was declared back in service at 0005 on July 16, 1975.

7. Designation of Apparent Cause of Occurrence

Investigation on July 15th revealed that the valve was on its seat; the Limitorque operator was relayed out on thermal overload; and the torque switch (which deenergizes the motor after the valve closes) was still closed. This would indicate that the valve motor had stalled and relayed out (thermally) on its previous closing because of an improperly adjusted torque switch. The torque switch was adjusted and the valve was retested satisfactorily several times. On

the following day, July 16, 1975, at 1003, after satisfactorily testing the motor-driven auxiliary feed pumps and associated valves, V2-14B was taken out of service to attempt to discern the reason for the misadjusted torque switch.

Internal inspection of the Limitorque operator revealed that the Belleville spring, (which resists the torquing thrust when closing the valve) was filled with grease and the shaft on which the Belleville spring rides was marred by a small burr under the middle of the spring. The burr was apparently caused by wear from the action of the spring. Either, or both of these factors could have changed the "stiffness" of the Belleville spring, causing the torque switch to appear out of adjustment.

8. Analysis of Occurrence

There were no personal injuries, nor was there a release of radioactive materials involved in the occurrence.

The failure of this valve would have prevented the addition of water to the "B" Steam Generator from the steam-driven auxiliary feedwater pump. At this time (July 15), however, feedwater was being supplied to all steam generators by the main feedwater pumps. The motor-driven auxiliary feedwater pumps and valves had just been verified operable during PT-22. (On July 16, 1975, when V2-14B was removed from service for further inspection, the motor-driven auxiliary feedwater pumps had also been verified operational.)

Technical Specifications Paragraph 3.4.1 requires two of the three auxiliary feedwater pumps to be operable. Since this was always the case, no limiting conditions of operation were violated, and the plant was continually maintained in a safe condition.

9. Corrective Action

Initial (July 15) corrective action was to readjust the torque switch to ensure that the Limitorque motor cut off prior to "jamming" the valve and subsequently tripping out on thermal overload.

When it was later (July 16) determined that the "stiffness" of the Belleville spring had apparently been affected by grease and/or a burr on its shaft, these conditions were corrected. The burr was removed by "dressing" the shaft to a smooth surface finish; the grease was cleaned from the spring pack; and the torque switch adjustment was checked. V2-14B was reinstalled at 1359 on July 16, 1975, and satisfactorily test operated several times.

As further corrective action, it is our intention to inspect the Belleville spring packs and shafts of all model SMB-00 and SMB-000 Limitorque operators on safety related systems. These inspections will be made as soon as practical, considering accessibility of the valve operators.

10. Failure Data

A. On June 17, 1975, during the performance of PT-22, V2-14B opened as required by the PT, but would not close. A faulty torque switch was replaced, and the valve was test operated satisfactorily several times. This did not constitute an abnormal occurrence because the valve opened as required, and thus was capable of performing its required safety function.

B. Valve V2-14B is a Chapman 4", L-900 W.E.O.S. Pressure Seal Gate Valve with a SMB-00 Limitorque Operator.