

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL  
(TEMPORARY FORM)

CONTROL NO: 3447

FILE:

FROM: Carolina Power & Light Co. Raleigh, N.C. 27602 Mr. E.E. Utley			DATE OF DOC  4-12-74	DATE REC'D  4-19-74	LTR  X	MEMO	RPT	OTHER
TO:  J.F. O'Leary			ORIG  3 signed	CC	OTHER	SENT AEC PDR XXX SENT LOCAL PDR XXX		
CLASS	UNCLASS  XXX	PROP INFO	INPUT	NO CYS REC'D  40		DOCKET NO:  50-261		

DESCRIPTION:

Ltr trans the following.....

ENCLOSURES:

Abnormal Occurrence No. 74-8...concern....  
Failure of "A" Boric Acid Transfer Pump  
.....

**ACKNOWLEDGED**

(40 cys encl rec'd)

**DO NOT REMOVE**

PLANT NAME: H.B. Robinson #2.

FOR ACTION/INFORMATION

4-19-74

JB

BUTLER(L)	SCHWENCER(L)	ZIEMANN(L)	REGAN(E)
W/ Copies	W/ Copies	W/ Copies	W/ Copies
CLARK(L)	STOLZ(L)	DICKER(E)	
W/ Copies	W/ Copies	W/ Copies	W/ Copies
PARR(L)	VASSALLO(L)	KNIGHTON(E)	
W/ Copies	W/ Copies	W/ Copies	W/ Copies
KNIEL(L)	✓ PURPLE (L)	YOUNGBLOOD(E)	
W/ Copies	W/7 Copies	W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

✓ <u>REG FILE</u>	✓ <u>TECH REVIEW</u>	DENTON		<u>A/T IND</u>
✓ AEC PDR	✓ HENDRIE	GRIMES	<u>LIC ASST</u>	BRAITMAN
✓ OGC, ROOM P-506A	✓ SCHROEDER	GAMMILL	DIGGS (L)	SALTZMAN
✓ MUNTZING/STAFF	✓ MACCARY	KASTNER	GEARIN (L)	B. HURT
✓ CASE	✓ KNIGHT	BALLARD	GOULBOURNE (L)	<u>PLANS</u>
GIAMBUSSO	✓ PAWLICKI	SPANGLER	LEE (L)	MCDONALD
BOYD	✓ SHAO		MAIGRET (L)	DUBE w/Input
MOORE (L) (BWR)	✓ STELLO	<u>ENVIRO</u>	REED (E)	<u>INFO</u>
DEYOUNG(L) (PWR)	✓ HOUSTON	MULLER	SERVICE (L)	C. MILES
SKOVHOLT (L)	✓ NOVAK	DICKER	SHEPPARD (L)	✓ B. KING (E/W-358)
✓ COLLER(L)	✓ ROSS	KNIGHTON	SLATER (E)	✓ KLECKER
P. COLLINS	✓ IPPOLITO	YOUNGBLOOD	SMITH (L)	✓ EISENHUT
DENISE	✓ TEDESCO	REGAN	✓ TEETS (L)	
✓ REG OPR	✓ LONG	PROJECT LDR	WADE (E)	
FILE & REGION(3)	✓ LAINAS		WILLIAMS (E)	
✓ MORRIS	✓ BENAROYA	HARLESS	WILSON (L)	
✓ STEELE	✓ VOLLMER			

EXTERNAL DISTRIBUTION

✓ 1 - LOCAL PDR <u>Hartsville, S.G.</u>	(1)(2)(10)-NATIONAL LAB'S	1-PDR-SAN/LA/NY
✓ 1 - TIC (ABERNATHY)	1-ASLEP(E/W Bldg, Rm 529)	1-GERALD LELLOUCHE
✓ 1 - NSIC(BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	BROOKHAVEN NAT. LAB
1 - ASLB	1-CONSULTANT'S	1-AGMED(Ruth Gussman)
1 - P. R. DAVIS (AEROJET NUCLEAR)	NEWMARK/BLUME/AGBABIAN	RM-B-127, GT.
✓ 16 - CYS ACRS <del>HOLDING</del> Sent to Teets	1-GERALD ULRIKSON...ORNL	1-RD..MULLER..F-309 GT
4-19-74	1-B & M SWINEBROAD, Rm E-201 GT	

*A.B.*



Carolina Power &amp; Light Company

April 12, 1974

50-261

File: NG-3514

Serial: NG-74-443

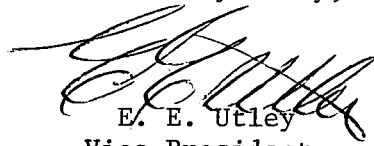
Mr. John F. O'Leary, Director  
Directorate of Licensing  
Office of Regulation  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. O'Leary:

H. B. ROBINSON UNIT NO. 2  
LICENSE DPR-23  
FAILURE OF "A" BORIC ACID TRANSFER PUMP

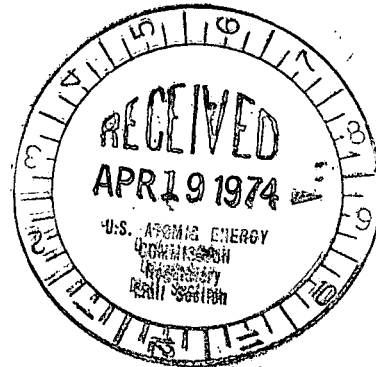
In accordance with Section 6.6.2a of the Technical Specifications for H. B. Robinson Unit No. 2, the attached Abnormal Occurrence Report is submitted for your information. This report fulfills the requirements for a written report within ten days of an abnormal occurrence and is in accordance with the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

Yours very truly,

  
E. E. Utley  
Vice-President  
Bulk Power Supply

JBM:DBW:mvp  
Attachment

cc: Messrs. N. B. Bessac  
B. J. Furr  
T. E. Bowman  
W. B. Howell  
D. V. Menscer  
N. C. Moseley  
D. B. Waters



## ABNORMAL OCCURRENCE REPORT

1. Report No. 74-8
- 2a. Date April 8, 1974
- 2b. Occurrence Date April 6, 1974
3. Facility H. B. Robinson Unit No. 2
4. Identification of Occurrence

Failure of "A" Boric Acid Transfer Pump constituting an abnormal occurrence as defined in Section 1.8.d of the Technical Specifications.

5. Conditions Prior to Occurrence

No. 2 Unit was operating at 30% nuclear power with 150 MWe net load on the generator. "A" Boric Acid Transfer Pump was in service, recirculating the contents of "A" Boric Acid Tank. "B" Boric Acid Transfer Pump was lined up for supplying make up to the Reactor Coolant System.

6. Description of Occurrence

At approximately 0850 hours on April 6, 1974, a high temperature alarm was received on "A" Boric Acid Transfer Pump, initiated by Heat Trace Recorder No. 1. The Auxiliary Operator on duty immediately checked the pump and found it stopped. The pump breaker was checked and found normal, therefore, it was determined that the pump had tripped due to thermal overload. Instrumentation and Control Technicians were called and the pump restarted. Current readings indicated abnormally low, therefore, a broken shaft or impeller separation was suspected. The pump was secured and declared inoperable at 0907 hours.

7. Designation of Apparent Cause of the Occurrence

The pump was disassembled for inspection and repair. A broken shaft in the vicinity of the keyway was determined to be the cause of the failure.

8. Analysis of Occurrence

Immediately upon verification that "A" Boric Acid Transfer Pump would not meet its intended function, it was declared inoperable. "B" Boric Acid Transfer Pump was operable, therefore, plant operation at power was continued.

April 8, 1974

9. Corrective Action

"A" Boric Acid Transfer Pump was replaced with a spare pump from stock and will be repaired or replaced for future use.

Past failures of this type pump have led to modifications which should lead to increased reliability. One anticipated improvement was redesigning the shaft keyway, from a square to a round shape to reduce fatigue in this area. In recent weeks we have experienced a failure of this modified shaft, therefore, we feel this is not the ultimate solution.

Representatives of the Chempump Division of Crane Company have been contacted and will be on site in the near future to continue their investigation of this problem. We, in conjunction with these engineers, are concerned with these failures and will continue to pursue modifications which will improve the dependability of these pumps.

10. Failure Data

8-15-73 Pump failure due to broken shaft in vicinity of keyway.

12-4-73 Pump failure due to broken shaft in vicinity of keyway.

3-20-74 Pump failure due to broken shaft in vicinity of keyway.