

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 1514

FILE: INCIDENT REPORT

FROM: Carolina Power & Light Co Raleigh, N.C. 27602 Mr. E.E. Utley		DATE OF DOC 2-6-75	DATE REC'D 2-10-75	LTR X	TWX	RPT	OTHER
TO: N.C. Moseley		ORIG none 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 reporting an abnormal Occurrence
at the H.B. Robinson Nuclear Facility
....trans the following...

ENCLOSURES:

Abnormal Occurrence Report No. 50-261/75-3
concerning....overcurrent trip of "C" comp-
onent cooling water pump.....

(40 cys encl rec'd)

PLANT NAME: H.B. Robinson

FOR ACTION/INFORMATION

2-11-75

JB

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

INTERNAL DISTRIBUTION

<u>REG FILE</u>	<u>TECH REVIEW</u>	<u>DENTON</u>	<u>LIC. ASST.</u>	<u>A/T IND</u>
✓ AEC PDR	✓ SCHROEDER	GRIMES	DIGGS (S)	BRAITMAN
✓ GGC, ROOM P-506-A	✓ MACCARRY	GAMMILL	GEARIN (S)	SALTZMAN
✓ GOSSICK /STAFF	✓ KNIGHT	✓ KASTNER	GOULBOURNE (S)	B. HURT
✓ CASE	✓ PAWLICKI	BALLARD	KREUTZER (E)	
GIAMBUSSO	✓ SHAO	SPANGLER	LEE (S)	<u>PLANS</u>
BOYD	✓ STELLO		MAIGRET (S)	MCDONALD
MOORE (S) (BWR)	✓ HOUSTON	<u>ENVIRO</u>	REED (E)	CHAPMAN
DEYOUNG (S) (FWR)	✓ NOVAK	MULLER	SERVICE (S)	DUBE w/input
SKOVHOLT (S)	✓ ROSS	DICKER	SHEPPARD (S)	E. COUPE
GOLLER (S)	✓ IPPOLITO	KNIGHTON	SLATER (E)	✓ R. Hartfield (2)
P. COLLINS	✓ TEDESCO	YOUNGBLOOD	SMITH (S)	✓ KLECKER
DENISE	✓ LONG	REGAN	✓ TEETS (S)	✓ F. WILLIAMS
REG OPR	✓ LAINAS	PROJECT LDR	WILLIAMS (E)	
✓ FILE & REGION	✓ BENAROYA		WILSON (S)	
✓ T.R. WILSON	✓ STEELE	✓ VOLIMER	INGRAM (S)	
		HARLESS		

EXTERNAL DISTRIBUTION

✓ 1-LOCAL PDR <i>Hartsville, S.C.</i>	(1) (2) (10) -NATIONAL LABS	1-PDR SAN/LA/NY (4)
✓ 1-TIC (ABERNATHY)	1-W. PENNINGTON, RM E-201 G.T.	1-BROCKHAVEN NAT LAB
✓ 1-NSIC (BUCHANAN)	1-CONSULTANTS	1-G. ULRIKSON, ORNL
1-ASLB	NEWMARK/BLUME/AGBABIAN	1-AGMED (RUTH GUSSMAN)
1-NEWTON ANDERSON		RM B-127 G.T.
✓ 5-ACRS SENT TO LIC. ASST.		1-J. RUNKLES, RM E-201
		G.T.



Carolina Power & Light Company

File

February 6, 1975

File: NG-3513 (R)

Serial: NG-75-169

Mr. Norman C. Moseley, Director
Directorate of Regulatory Operations
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
COMPONENT COOLING PUMP "C" OUT OF SERVICE

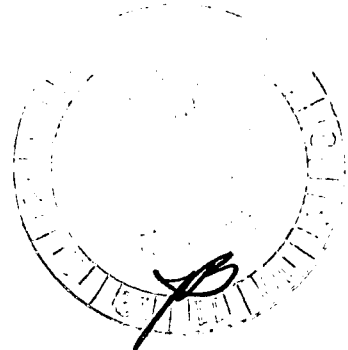
In accordance with 6.6.2.a of the Technical Specifications for H. B. Robinson Unit No. 2, the attached Abnormal Occurrence Report is submitted for your information. This report fulfills the requirement for a written report within ten days of an Abnormal Occurrence and is in accordance with the format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

Yours very truly,

E. E. Utley
Vice-President
Bulk Power Supply

TAW:KPY:mvp
Attachment

cc: Messrs. N. B. Bessac
W. E. Graham
P. W. Howe
D. Knuth
J. B. McGirt
D. B. Waters



1514

Abnormal Occurrence Report

1. Report No. 50-261/75-3
- 2a. Date February 3, 1975
- 2b. Occurrence Date January 26, 1975
3. Facility H. B. Robinson Unit No. 2
Hartsville, South Carolina

4. Identification of Occurrence

Overcurrent trip of "C" component cooling water pump. This constitutes an abnormal occurrence as defined in Technical Specification Section 1.8.d.

5. Conditions Prior to Occurrence

The plant was at 100% nuclear power with all parameters normal. Operations personnel were conducting the weekly routine of swapping auxiliary component loads.

6. Description of Occurrence

At approximately 0200 on January 26, 1975, operations personnel were in the process of swapping auxiliary loads. At 0243 "B" Component Cooling Water Pump (CCWP) was running. It was intended that "C" CCWP be started and "B" CCWP stopped. The control operator initiated a start signal for "C" CCWP from the control board. However, the red light which indicates the pump is running did not illuminate. Thinking he did not hold the control switch in the "START" position a sufficient length of time for the breaker to fully close, the operator attempted to restart "C" CCWP with the same result. Approximately 30 seconds after the initial start attempt an alarm was received indicating "C" CCWP had tripped due to an overload. Auxiliary operators inspected "C" CCWP and rotated the pump shaft to insure its free movement. The shift foreman examined the breaker which feeds "C" CCWP. No problems were identified and another attempt to restart the pump was initiated. The pump started at that time but the outboard mechanical seal developed a leak which stopped after a short period of time. In an attempt to verify the pump and its control circuit were operating properly, "C" CCWP was stopped and again started. This time the leak from the seal became excessive. Repairs were effected on the leaking seal. Instrumentation and Control Technicians were called out to inspect the breaker which feeds "C" CCWP. No electrical problems were identified, and following seal replacement the pump was restarted satisfactorily and declared operable at 1441 on January 26, 1975.

7. Description of Apparent Cause of Occurrence

The red indicating light (pump running) on the RTGB was defective. When the operator initially attempted to start the pump he had no true indication of the pump starting status. The adjacent lights on the RTGB "flickered" when the start was initiated giving an indication that the breaker did close and power was supplied to the pump.

The pumps outboard mechanical seal was examined and found to be cracked. Excessive damage could not be detected and the pump turned freely. Due to this limited damage, binding of the pump shaft was ruled out as a possible cause of the overload. The pump discharge check valve was disassembled and inspected. There was no evidence of malfunction or defect. A thorough examination was also made of the breaker. No mechanical or electrical deficiency was found.

The most probable cause of the trip is backleakage through the pumps discharge side check valve due to debris impeding its full closure. This conjectured backleakage would have caused the pump to rotate backwards. The motor which drives "C" CCWP is an induction type motor which is characterized by a low starting torque. Under the postulated conditions when the pump was started, the motor could not develop enough torque to quickly overcome the backward rotation. Therefore, the motor drew an abnormally high amount of current. The higher starting current eventually enabled the motor to start rotating in the proper direction. The resulting water pressure lifted the check valve enough to release the debris caught on the valve seat. The motor current at this time was still abnormally high due to low pump speed. The high current caused the 30 second time delay overcurrent devices to trip the breaker. With the debris cleared from the check valve, the valve seated properly.

8. Analysis of Occurrence

Technical Specification Section 3.3.3.2 requires two component cooling water pumps which are fed from the emergency busses to be operable during normal plant operation. If one pump is out of service for more than 24 hours, the reactor must be shut down. For this occurrence, while "C" CCWP was inoperable, "B" CCWP was running. Also "C" CCWP was returned to service within 24 hours. Therefore, no limiting condition for operation was violated. In addition, "A" CCWP (which is fed from 4160 volt Bus No. 3 via a 4160/480 volt station service transformer) was available for use in the event of an emergency.

9. Corrective Action

The leaking mechanical seal and the status light module on the control board for "C" CCWP were replaced. The breaker which feeds "C" CCWP was thoroughly examined and determined to be in proper working condition. "C" CCWP has been stopped and started a number of times since the occurrence without trouble, verifying the check valve operability. No further corrective action is deemed necessary.

10. Failure Data

No previous failures of this type have occurred.