

**AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL**  
(TEMPORARY FORM)

CONTROL NO: 8045

FILE: \_\_\_\_\_

FROM: Carolina Power & Light Company Raleigh, N. C. 27602 E. E. Utley		DATE OF DOC 10-31-73	DATE REC'D 11-6-73	LTR X	MEMO	RPT	OTHER
TO: J. F. O'Leary		ORIG 3 signed	CC	OTHER	SENT AEC PDR X SENT LOCAL PDR X		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 40	DOCKET NO: 50-261		

DESCRIPTION:  
Ltr reporting an abnormal occurrence on 10-21-73, regarding a violation of steam flow set-points.....

ENCLOSURES:

**ACKNOWLEDGED**  
**DO NOT REMOVE**

PLANT NAME: H. B. Robinson Unit 2

FOR ACTION/INFORMATION 11-6-73 GC

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INTERNAL DISTRIBUTION

<u>REG FILE</u>	<u>TECH REVIEW</u>	DENTON	<u>LIC ASST</u>	<u>A/T IND</u>
✓AEC PDR	✓HENDRIE	GRIMES		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
MOORE (L) (BWR)	✓STELLO	<u>ENVIRO</u>	SERVICE (L)	<u>INFO</u>
DEYOUNG(L) (PWR)	✓HOUSTON	MULLER	SHEPPARD (E)	C. MILES
✓SKOVHOLT (L)	✓NOVAK	DICKER	SMITH (L)	✓B. King (RO)
P. COLLINS	✓ROSS	KNIGHTON	✓TEETS (L)	
	✓IPPOLITO	YOUNGBLOOD	WADE (E)	
<u>REG OPR</u>	✓TEDESCO	REGAN	WILLIAMS (E)	
FILE & REGION(3)	✓LONG	PROJECT LDR	WILSON (L)	
✓MORRIS	✓LAINAS			
✓STEELE	✓BENAROYA	<u>HARLESS</u>		
	✓VOLLMER			

EXTERNAL DISTRIBUTION

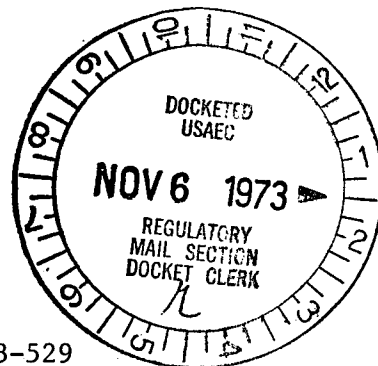
✓1 - LOCAL PDR Hartville, S. C.	(1) (2) (10) - NATIONAL LAB'S	1-PDR-SAN/LA/NY
✓1 - DTIE(ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-GERALD LELLOUCHE
✓1 - NSIC(BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	BROOKHAVEN NAT. LAB
1 - ASLB(YORE/SAYRE/ WOODARD/"H" ST.	1-CONSULTANT'S	1-AGMED(Ruth Gussman)
✓16 - CYS ACRS <del>XXXXXXXX</del> SENT TO LIC. ASST.	NEWMARK/BLUME/AGBABIAN	RM-B-127, GT.
11-6-73 TEETS	1-GERALD ULRICKSON...ORNL	1-RD..MULLER..F-309 GT

# Regulatory Docket File

## CP&L

Carolina Power & Light Company

October 31, 1973



File: NG-3514

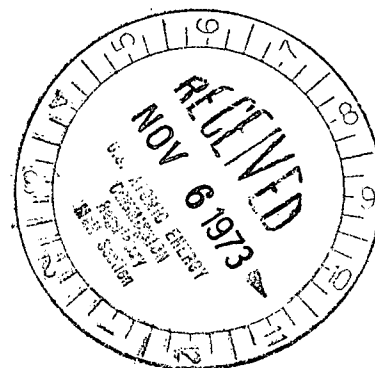
Serial: NG-73-529

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:

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H. B. ROBINSON UNIT NO. 2  
LICENSE NO. DPR-23  
VIOLATION OF STEAM FLOW SETPOINTS



In accordance with Section 6.6.2 of the Technical Specifications, it is reported that on October 21, 1973, a safeguards system was defeated for one (1) hour and 29 minutes which constituted an Abnormal Occurrence as defined in Section 1.8.G of the Technical Specifications.

On October 19, 1973, H. B. Robinson Unit No. 2 was retired to perform maintenance on the secondary plant. The reactor was maintained in a hot shutdown condition during this period. As some maintenance was required on one Moisture Separator Reheater, a vacuum was maintained on the main condenser to remove any steam which could possibly have been trapped in the shell side of this piece of equipment and to remove any steam which could have leaked through the closed turbine valves.

Turbine first stage pressure transmitters (PT446 and PT447), which provide an input to the safeguards system for percent turbine load, were subjected to the negative pressure caused by condenser vacuum. As a result, the "zero" point was shifted downward to the point where somewhat less than 20% steam flow resulted in the high steam flow bistables (FC-474, 475, 484, 485, and 494) of the "high steam flow/low  $T_{avg}$ , low steam line pressure" trip being in a tripped mode. The low  $T_{avg}$  (TC-412, 422, and 432) portion of this safeguards trip may be manually blocked at 543 degrees F or less and this was the condition immediately prior to the Abnormal Occurrence.

On increasing  $T_{avg}$ , this feature is automatically unblocked and had this occurred, a safeguards trip would have been initiated if  $T_{avg}$  had dropped below 543 degrees F again.

On October 21, 1973, maintenance work was completed and the turbine was being prepared for normal operation. Due to the tripped bistables on the high steam flow input, the steam generator isolation valves were closed. At 0511, to permit opening of these valves, a simulated signal was placed on FC-474, 475, 484, and 485 clearing the bistables and allowing the steam generator isolation valves to open. It was intended to remove these signals when  $T_{avg}$  had been increased to above 543 degrees F, however, it was overlooked until 0640 at which time reactor power had been increased to 20% and the lack of steam flow indication was visible to the operator. The signal was immediately removed and the safeguards trip restored to normal status.

The violation occurred when the signal was simulated on the transmitters as this system is required to be operable above a cold shutdown condition.

The conditions which caused the high steam flow bistables to be in the tripped mode with zero steam flow had been recognized earlier and a request to change the Technical Specification limits from 20% steam flow at zero load to 40% at zero load had been drafted and was being readied to submit to the AEC.

As further corrective actions, all personnel involved have been counseled on the importance of maintaining all safeguards equipment operable as required by the Technical Specifications. In addition, no safeguards systems are to be disabled without prior approval of the operating supervisor except as stated in the Technical Specifications.

A study is being made to determine the feasibility of installing a modified summator in the turbine first stage pressure transmitters which would prevent these transmitters being driven negative when subjected to condenser vacuum.

Mr. John F. O'Leary

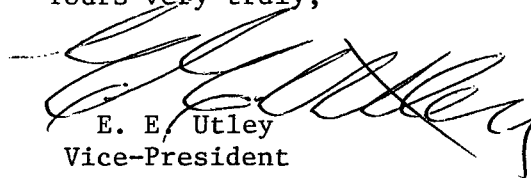
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October 31, 1973

We feel that the above corrective actions will prevent this Abnormal Occurrence from recurring.

No proprietary information is contained in this report.

Yours very truly,



E. E. Utley  
Vice-President  
Bulk Power Supply

JBM:DBW:mvp

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