AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 5951

FILE: 410

FROM:	DATE OF DOC	DATE REC'D	LTR	TWX	RPT	OTHER
Carolina Power & Light Company Raleigh, N.C. 27602 Mr. N.B. Bessac	6-20-74	7-1-74	X			

TO:	ORIG	CC	OTHER	SENT AEC PDR	SENT LOCAL PDR
J.F. O'Leary	2 signed			XXX	XXX

CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:
	XXX			40	50-261

DESCRIPTION:
Ltr reporting an abnormal occurrence at the H.B. Robinson.....concerning Safety injection system accumulator.....

ENCLOSURES:

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: H.B. Robinson

FOR ACTION/INFORMATION 7-1-74 JB

BUTLER (L) W/ CYS	SCHWENCER (L) W/ CYS	ZIEMANN (L) W/ CYS	REGAN (E) W/ CYS
CLARK (L) W/ CYS	STOLZ (L) W/ CYS	DICKER (E) W/ CYS	W/ CYS
[illegible] (L) W/ CYS	VASSALLO (L) W/ CYS	KNIGHTON (E) W/ CYS	W/ CYS
KNIEL (L) W/ CYS	✓ PURPLE (L) W/ 7 CYS	YOUNGBLOOD (E) W/ CYS	W/ CYS

INTERNAL DISTRIBUTION

✓REG FILE	TECH REVIEW	DENTON	LIC ASST	A/T IND
✓AEC PDR	✓HENDRIE	GRIMES	DIGGS (L)	BRAITMAN
✓OGC	SCHROEDER	GAMMILL	GEARIN (L)	SALTZMAN
✓MUNTZING/STAFF	✓MACCARY	KASTNER	GOULBOURNE (L)	B. HURT
✓CASE	✓KNIGHT	BALLARD	KREUTZER (E)	
GIAMBUSSO	✓PAWLICKI	SPANGLER	LEE (L)	PLANS
BOYD	✓SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(LWR-2)	✓STELLO	ENVIRO	REED (E)	CHAPMAN
DEYOUNG (L)(LWR-1)	✓HOUSTON	MULLER	SERVICE (L)	DUBE w/input
SKOVHOLT (L)	✓NOVAK	DICKER	SHEPPARD (L)	E. COUPE
✓GOLLER (L)	✓ROSS	KNIGHTON	SLATER (E)	
P. COLLINS	✓IPPOLITO	YOUNGBLOOD	SMITH (L)	✓D. THOMPSON (2)
DENISE	✓TEDESCO	REGAN	✓TEETS (L)	✓KLECKER
✓REG OPR	✓LONG	PROJECT MGR	WILLIAMS (E)	✓EISENHUT
FILE & REGION (3)	✓LAINAS		WILSON (L)	
✓MORRIS	✓BENAROYA	HARLESS		
✓STEELE	✓VOLLMER			

EXTERNAL DISTRIBUTION

✓1 - LOCAL PDR Hartsville, S.C.
✓1 - TIC (ABERNATHY)
✓1 - NSIC (BUCHANAN)
1 - ASLB
1 - P. R. DAVIS
✓16 - ACRS SENT TO LIC ASST Teets 7-1-74

(1)(2)(10)-NATIONAL LABS
1-ASLBP(E/W Bldg, Rm 529)
1-W. PENNINGTON, Rm E-201 GT
1-B&M SWINEBROAD, Rm E-201 GT
1-CONSULTANTS
NEWMARK/BLUME/AGBABIAN

1-PDR-SAN/LA/NY
1-BROOKHAVEN NAT LAB
1-G. ULRIKSON, ORNL
1-AGMED (RUTH GUSSMAN) Rm B-127 GT
1-RD..MUELLER, Rm F-309 GT

Rg 8

Regulatory File Cy.

CP&L

Carolina Power & Light Company

June 20, 1974

File: NG-3513 and NG-3514 Serial: NG-74-745

50-261

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

Mr. Norman C. Moseley, Director
Directorate of Regulatory Operations
U. S. Atomic Energy Commission
Region II, Suite 818
230 Peachtree Street, N.W.
Atlanta, Georgia 30303

Dear Sirs:

H. B. ROBINSON UNIT NO. 2
LICENSE NO. DPR-23
SAFETY INJECTION SYSTEM ACCUMULATOR
SAFETY RELIEF VALVE DESIGN REVIEW

The following unusual event report is submitted as required by Section 6.6.2.b of the Technical Specifications.

Carolina Power & Light Company completed a design review of the SIS Accumulator Safety Relief Valve installation on June 4, 1974. The review was performed in accordance with the Westinghouse publication, "Criteria and Guidelines for the Design of Safety and Relief Valve Installations on Westinghouse Pressurized Water Reactors." Safety valves 858 A, B and C are located at accumulator tanks A, B and C and are set to relieve at 700 psig. Each valve is supported by its two-inch inlet pipe which connects to the upper horizontal run between the accumulator tank and the tank level indicator.

The design review revealed the following problems:

1. The two-inch safety relief valve inlet pipe is stressed beyond allowable limits when considering the bending moment set up by the reaction force of blowing nitrogen and water at the three-inch elbow on the safety relief valve discharge.

2. The location of the safety relief valve inlet pipe on the horizontal level sensing line will cause a siphon head to develop in the level sensing line in event the safety relief

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valve lifts. Any water in the level float chamber and lower portion of the level piping will be drawn into the safety relief valve creating a slug or water hammer discharge. This will create forces of a higher magnitude than the continuous reaction forces at the safety relief valve discharge.

The following modifications will be accomplished during the 1974 refueling outage to eliminate the above conditions:

1. Three-inch tees will be installed in place of the three-inch elbows at each safety relief valve discharge. This will provide opposed discharge forces at each tee open end which will reduce the bending moment in the safety relief valve inlet pipe and result in the stresses being within allowable limits.

2. A one-fourth inch orifice will be installed above normal water level in the line between the level float chamber and the safety relief valve connection. This will reduce the volume of any water slug being siphoned into the safety valve during a discharge and will permit normal operation of the level transmitter. The orifice will prevent the water level from "bouncing" during discharge and will prevent the valve from passing slugs of water during discharge.

Yours very truly,

N. B. Bessac
Manager
Nuclear Generation

JMB:mvp

cc: Messrs. T. E. Bowman
B. J. Furr
W. E. Graham
D. V. Menscer
E. E. Utley
D. B. Waters
R. A. Watson