	AEC DISTRIBU	(TEMPORARY F	RIAL	CONTROL NO: 5836			
				FILE: <u>410</u>			
FROM:		DATE OF DOC	DATE REC'D	LTR	TWX	RPT 1	OTHER
C a rolina Power &	Light		. •			1	
Raleigh, NC		:	· ·			}	
N. B. Bessac		6-24-74	6-27-74	Х	1	<u>к</u> .	
TO:	<u>د معرف محمد معمد معمد معمد معمد معمد معمد معمد</u>	ORIG	CC OTHER	1	SENT AF	EC PDR	XX
T E Olice		2 steps 1	20		SENT LO	XAL PD	R XX
J. F. U Lea	ry						····
CLASS UNCLASS	PROP INFO	INPUT	NO CYS REC'D		DOCKET	NO:	
XXX DECENTRATION			40 ENCLOSURES	50)-261	·	
DESCRIPTION:			ENCLUSURES:				
Itr furn info re	unusual event re b	ulged areas			ADD		•
in the containmen	t liner		ACKNOV	V LED	ULL.	-	•.
			2-0	m DF	MOVE		
			DO NU	LUL			· ·
		· ·					
	•						•
PLANT NAME: H.	B. ROBINSON UNIT #	2					
		FOR ACTION/IN	FORMATION 6-	27-74	GMC		
		GTDUNDT /T		(-)			
BUILER (L)	SCHWENCER (L)	ZIEMANN (I	.) REGAN ((E)			
W/ GIS CLADY (I)		W/ GIS DICKED (E)	W/ CYS	5			
ULARK (L)	SIOLZ (L)	DICKER (E)		-			
W/ C13	W/ GIS WASSATTO (T)		שאר עוני יידי - יי	5			
W/ CYS	W/ CYS	W/ CVS		2			•
KNTEL (L)	PURPLE (I.)	YOUNGBLOOD) (F)	<i>.</i>			
W/ CYS	W/7 CYS	W/ CYS	W/ CYS	5			
REC ETLE	TECH DEVIEU	DENUMAL DISTRI	BUTION	······			
AFC PDR	HENDDIE	CRIMES	DICCS (I)		A/T I		
	SCHROFDFR	CAMMILI	CEADIN (I)	•	DKALI SALT2	.MAN MAN	
MUNTZING/STAFF	MACCARY	KASTNER	COUL BOURNE	/ 7 (T)	B LU	ITEAIN IDTP	
CASE	KNIGHT	BALLARD	KREUTZER (с. С.	D. 110	IX L	
GIAMBUSSO	PAWLICKI	SPANGLER	LEE (L)	()	PLANS		
BOYD	SHAO		MAIGRET (1	2)	MCDON	IALD	
MOORE (L)(LWR-2)	STELLO	ENVIRO	REED (E)	•	CHAPM	IAN	
DEYOUNG (L)(LWR-	1) HOUSTON	MULLER	SERVICE (L	5)	DUBE	w/input	-
SKOVHOLT (L)	NOVAK	DICKER	SHEPPARD ((L)	E. CC	UPE	-
GOLLER (L)	ROSS	KNIGHTON	SLATER (E)	}			•
P. COLLINS	IPPOLITO	YOUNGBLOOD	SMITH (L)		JD. TH	IOMPSON	(2)
DENISE	TEDESCO	REGAN	TEETS (L)		J KLECK	ER	
REG OPR	LONG	PROJECT MG	R WILLIAMS ((E)	J EISEN	HUT	
FILE & REGION (3)) LAINAS		WILSON (L)				. *
MORRIS	BENAROYA	HARLESS					
STEELE	✓ VOLLMER	•				·	, <i>q</i>
<u> </u>	E	XTERNAL DISTRI	BUTION		····		KA
- LOCAL PDR HA	ARTVILLE, SC					•	_ _ _
A - TIC (ABERNA	ATHY) (1)(2)(10)-NATIO	NAL LABS		1-PDR-	SAN/LA/	'NY -
- NSIC (BUCHA)	NAN)	1-ASLBP	(E/W Bldg, Rm 5	29)	1-BR00	KHAVEN	NAT LAB
I - ASLB		1-W. PE	NNINGTON, Rm E-	201 GT	1-G. U	LRIKSON	I, ORNL
- P. R. DAVIS		1-B&M S	WINEBROAD, Rm E	-201 GI	1-AGME	D (RUTH	I GUSSMAN)
- ACKS SENT TO	LIC ASST TEETS	1-CONSU	LTANTS		Rm B	-127 GT	·
0-21-14		NEWMA	KK/BLUME/AGBABI	AN .	I-RD GT	MUELLER	ι, ι Επ .,Β⊷2403. Γ



Carolina Power & Light Company

June 24, 1974

50-261

File: NG-3513 and NG-3514

Serial: NG-74-766

Mr. John F. O'Leary, DirectorDirectorate of LicensingOffice of RegulationU. S. Atomic Energy CommissionWashington, 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 BULGED AREAS IN THE CONTAINMENT LINER

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

A bulge in the containment liner insulation above the operating deck at elevation 330' was noticed just prior to the May 4 plant shutdown for a normal refueling outage. Following the successful completion of an integrated leak rate test and a structural integrity test on the containment, the liner insulation was removed to examine one of the bulged areas more closely. The bulge was in the steel liner of the containment and was deformed toward the center of containment approximately 2.5 inches from the theoretical curvature. There was a void between parts of the bulged liner and the concrete as determined by the sound when tapping the area with a hammer. Eleven similar bulges were located around the containment at the same elevation and other bulges were noticed elsewhere in the containment.

On May 28, 1974, a consulting engineer examined the bulged areas in the containment liner and agreed with our concern for the potential of unusual stresses in the liner under accident conditions.

An investigation was initiated to determine the cause, severity and consequences of the liner bulge. The major points of this investigation are outlined below:

REGULATORY DOCKET FILE COPY

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1. The liner was ultrasonically tested to locate the concrete anchor studs. The studs are on 16" centers which is more conservative than the original design of 20" stud centers.

2. Further ultrasonic testing (UT) of the studs revealed thickness indications of 4¹/₄" to 4¹/₂" in all but three studs, which had indications at 2". Since the studs installed in this area have a nominal length of 4", it is concluded that all but three studs are intact.

- 3. Tapping with a hammer and using the hammer as an impact pendulum indicates that all the studs in the void area (even those with the 2" indication by UT) are solid.
- 4. The plant quality assurance files refer to liner bulges of the same or greater magnitude in the same general areas of containment as the present bulges. The correspondence files also refer to void areas. Those and other factors have led to the assumption that the containment liner bulges are an "as built" condition.
- 5. The containment liner bulges were inspected by Mr. L. Beratan, Mr. W. Swan and Mr. H. Whitener of the U. S. Atomic Energy Commission.
- 6. An engineering evaluation of the containment liner bulges were performed by Ebasco Services, Inc. A computer analysis using a finite element mathematical model concluded that the containment liner is safe for continued operation under both normal and accident conditions.
- 7. The liner bulge investigated above has been instrumented with strain gages which will be observed frequently during the plant heat up and periodically thereafter during the next operating cycle.

From the above it is concluded that the containment liner is safe for continued operation under all conditions. To obtain additional engineering data and as a precautionary measure a liner bulge will be monitored for strain during the next operating cycle. Any additional significant information resulting from our strain monitoring analysis will be provided for your information.

DLF:DBW:mvp

Yours very truly,

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

DBBAN

Manager Nuclear Generation