REPORT OF ABRORMAL OCCURRENCE AND/OK INCIDENT

NRC DISTAUTION FOR PART 50 DOCKET MA ERIAL

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CONTROL NO:

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FILE: INCIDENT REPORT FILE

FROM: Duke Power Co.			DATE OF DOC	DAT	E REC'D	LTR	TWX	RPT	OTHER
A.C. Thies		5-6-75	5	-19-75	xx				
TO		ORIG	<u> </u>	OTHER	SE		C PDR	XXX	
Norman C. Moseley		1 Signed			SENTLOCAL PDB XXX				
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DESCRI	PTION:		•	ENCL	OSURES:				
Ltr. g:	iving additi	onal info					•		
Ltr. Re	e the unusua	1 Event # 75-1	l on 2-14-75.	-	•	•		• •	
concern	n. the fail	ure to calcula	ate the hot zer		•.		•		, #
change		worth after co	Suctor rod fuce	ŀ			•	· · · · · · · · · · · · · · · · · · ·	· . · /
onunge		·	•		•		A. F.		
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PLANTI	NAME: Ocon	ee # 1							
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			FOR ACTION/	INFOR	MATION				VCR 5-20-75
BUTLER	R (L)	SCHWENCER	(L) ZIEMANN (L)	REGAN	(E)			
W/ Co	pies	W/ Copies	W/ Copies		W/ Co	pies		•	
	(L)	STULZ (L)	DICKER (E))					
PARR (VASSALLO (1) KNIGHTON	(=)	SPELS	1105	•	•	•
W/ Cor	bies	W/ Copies	W/ Copies	(-)	W/ Co	pies .	•		
KNIEL (L)	PURPLE (L)	YOUNGBLO)OD (E)				- •
W/ Copies / W/ Copies W/ Copies									
INTERNAL DISTRIBUTION									
REG FIL	E .	TECH REVIEN	<u>N</u> DENTON		LIC ASS	ST		$\frac{A/TI}{BDAI}$	ND.
OGC BO	N NAM P.506A	SUHRUEDER MACCARY	GAMMUL		H. DIGGS	(L) J /E)		501 T	
GOSSICI	K/STAFF	KNIGHT	KASTNER		F GOULB		E (L)	MEL	TZ
CASE		PAWLICKI	BALLARD		P. KREUT	ZER (E)		_
GIAMBU	ISSO	SHAO	SPANGLER		J. LEE (L)			PLAN	
MOORE	(1)	HOUSTON	ENVIRO	l	M. MAIGR	EI (L) E)		CHAE	PMALD
DEYOU	VG (L) **	NOVAK	MULLER	1	M. SERVIC	E) F(1)		DUB	E (Ltr)
SKOVHO	DLT (L)	ROSS	DICKER	ß	S. SHEPPA	RD (L	}	E.CC	UPE
GOLLER	(L) (Ltr)	IPPOLITO	KNIGHTON	A L	M. SLATER	R (E)		PETE	RSON
P. CULL	INS	¢1EDESCO		000	H. SMITH	(L)			NELD (2)
REG OPI	3	LAINAS	PROJECT L	DR	S. TEETS G. WILLIA	MS (E)	•	EISE	NHUT
FILE &, F	REGION (2)	BENAROYA			V. WILSON	v (L)		WIGO	SINTON
MIPC/P	'E (3)	-VOLLMER	HARLESS		R. INGRA	И (L)		- F. I	HLLIAMS
STEELE								- HAN	NUE SA
EXTERNAL DISTRIBUTION HOUN									
01 - LO	CAL PDR	all paras:		5.0				C A NI /I A	
1 - TIC (ABERNATHY) (1)(2)(10) - NATIONAL LABS 1 - PDR-SAN/LA/NY [
1 - ASLR $1 - CONSULTANTS$ $1 - G ULRIKSON ORNI$									
1 - Newton Anderson NEWMARK/BLUME/AGBABIAN 1 - AGMED (RUTH GUSSMAN)									
ACRS SENT TO LIC ASST O- ALA AD A Rm B-127 GT									
** SEN	D ONLY TEN	DAY REPORTS 🕊	Dielland			- 1	J. D.	RUNK	LES, Rm E-201
							51		

DUKE POWER COMPANY

Power Building

422 South Church Street, Charlotte, N. C. 2820

A. C. THIES SENIOR VICE PRESIDENT PRODUCTION AND TRANSMISSION

May 6, 1975

Mr. Norman C. Moseley, Director U. S. Nuclear Regulatory Commission Suite 818 230 Peachtree Street, Northwest Atlanta, Georgia 30303

Dear Mr. Moseley:

The purpose of this letter is to advise you of Duke Power Company's evaluation and decisions regarding the Oconee 1 ejected rod worth situation after the control rod interchange.

Unusual Event Report UE-269/75-1, submitted to you on February 14, 1975, concerned the failure to calculate the hot zero power ejected rod worth after control rod interchange during Cycle 1 operation of Oconee Unit 1. In that report it was stated that the ejected rod worth would be measured at the beginning of Cycle 2 and at the time of the rod interchange. It was also stated that if it were not expedient to run the test at the time of the control rod interchange, limits would be placed on the Control Rod Group 5 position during criticality because of uncertainty concerning the ejected rod worth value after the rod interchange at that time.

Since the submittal of UE-269/75-1, several significant developments, which aid in establishing the hot zero power ejected rod worth after the control rod interchange, have occurred:

- The hot zero power ejected rod worths for the beginning of Cycle 2 conditions were measured on March 10 and 11, 1975, and the results were in excellent agreement with B&W's fine-mesh PDQ calculations. (These results were reported in my letter to you of April 14, 1975.)
- 2. The maximum ejected rod worth for Oconee 1, Cycle 2, after the rod interchange is calculated to be 0.80% $\Delta k/k$.
- 3. A comparison of the measured hot zero power ejected rod worths with their calculated values for all operating B&W reactors (as of April 1975) shows that the deviation between the measured hot zero power ejected rod worths and their calculated values has a mean value of

P. O. Box 2178

Mr. Norman C. Moseley Page 2 May 6, 1975

-8.5 percent, indicating that the calculated values tend to be conservative. This includes the hot zero power ejected rod worth measurement performed at 125 EFPD in Oconee 2, in which the measured value is 0.57% $\Delta k/k$ and the calculated value is 0.75% $\Delta k/k$.

The general conservatism in B&W's calculation of the ejected rod worths, the close agreement of the beginning of Cycle 2 ejected rod worth measurement with the calculated values, and the substantial margin (20 percent) of the calculated hot zero power ejected rod worth after the rod interchange to the 1.0% $\Delta k/k$ limit are considered as reasonable assurances that the hot zero power ejected rod worth will not exceed the 1.0% $\Delta k/k$ limit after the rod interchange.

We have, therefore, decided that no restrictions on the control rod group positions will be necessary to meet the hot zero power ejected rod worth criterion for Oconee Unit 1 after the rod interchange.

Very truly yours,

A. C. Thies

ACT:vr

cc: Mr. Angelo Giambusso



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