

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL  
(TEMPORARY FORM)

CONTROL NO: 5586  
FILE: INCIDENT REPORT FILE

FROM: Duke Power Co. Charlotte, N.C. A.C. Thies		DATE OF DOC 5-6-75	DATE REC'D 5-19-75	LTR XX	TWX	RPT	OTHER
TO: Norman C. Moseley		ORIG 1 Signed	CC	OTHER	SENT AEC PDR <u>XXXX</u> SENT LOCAL PDR <u>XXXX</u>		
CLASS	UNCLASS <u>XXXX</u>	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-269		
DESCRIPTION: Ltr. giving additional info.... Ltr. Re the unusual Event # 75-1 on 2-14-75.. concern. the failure to calculate the hot zero power rejected rod worth after control rod inter change.....				ENCLOSURES:			
PLANT NAME: Oconee # 1							

FOR ACTION/INFORMATION

VCR 5-20-75

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

INTERNAL DISTRIBUTION

<del>REG FILE</del> NRC PDR OGC, ROOM P-506A GOSSICK/STAFF CASE GIAMBUSSO BOYD MOORE (L) DEYOUNG (L) SKOVHOLT (L) GOLLER (L) (Ltr) P. COLLINS DENISE REG OPR FILE & REGION (2) MIPC/PE (3) STEELE	TECH REVIEW <del>SCHROEDER</del> MACCARY KNIGHT PAWLICKI SHAO **STELLO **HOUSTON **NOVAK ROSS IPPOLITO TEDESCO LONG LAINAS BENAROYA VOLLMER	DENTON **GRIMES GAMMILL KASTNER BALLARD SPANGLER  ENVIRO MULLER DICKER KNIGHTON YOUNGBLOOD REGAN PROJECT LDR HARLESS	LIC ASST R. DIGGS (L) H. GEARIN (L) E. GOULBOURNE (L) P. KREUTZER (E) J. LEE (L) M. MAIGRET (L) S. REED (E) M. SERVICE (L) S. SHEPPARD (L) M. SLATER (E) H. SMITH (L) S. TEETS (L) G. WILLIAMS (E) V. WILSON (L) R. INGRAM (L)	A/T IND. BRAITMAN SALTZMAN MELTZ  PLANS MCDONALD CHAPMAN DUBE (Ltr) E. COUPE PETERSON HARTFIELD (2) KLECKER EISENHUT WIGGINTON F. WILLIAMS HANAUER
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EXTERNAL DISTRIBUTION

-1 - LOCAL PDR <u>Thalhballe S.C.</u>	-1 - TIC (ABERNATHY) (1)(2)(10)	- NATIONAL LABS	1 - PDR-SAN/LA/NY
-1 - NSIC (BUCHANAN)	1 - W. PENNINGTON, Rm E-201 GT		1 - BROOKHAVEN NAT LAB
1 - ASLB	1 - CONSULTANTS		1 - G. ULRIKSON, ORNL
1 - Newton Anderson	NEWMARK/BLUME/AGBABIAN		1 - AGMED (RUTH GUSSMAN) Rm B-127 GT
-5 - ACRS SENT TO LIC ASST			1 - J. D. RUNKLES, Rm E-201 GT
** SEND ONLY TEN DAY REPORTS	<u>Sheppard</u>		

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28201

A. C. THIES  
SENIOR VICE PRESIDENT  
PRODUCTION AND TRANSMISSION

P. O. Box 2178

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:

1. 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

Mr. Norman C. Moseley

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-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

UNITED STATES  
REGULATORY COMMISSION  
WASHINGTON, D.C.  
ATLANTA, GA.

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