

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

CONTROL NO: 1187

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

FROM: Duke Power Company Charlotte, N.C. 28201 A.C. Thies		DATE OF DOC 1-29-75	DATE REC'D 2-3-75	LTR XXX	TWX	RPT	OTHER
TO: Mr. A. Giambusso		ORIG 1 signed	CC	OTHER	SENT AEC PDR <u>XX</u>		SENT LOCAL PDR <u>XX</u>
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: <u>50-269/270/287</u>		

DESCRIPTION: Ltr re our 10-9-73 ltr....  
furnishing addl info re ATWS....

ENCLOSURES:

PLANT NAME: Oconee Units 1-2-3

*Do Not Remove*

**FOR ACTION/INFORMATION**

DHL 2-4-75

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies
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KNIEL (L) W/ Copies	<input checked="" type="checkbox"/> PURPLE (L) W/ 4 copies	YOUNGBLOOD (E) W/ Copies	W/ Copies

**INTERNAL DISTRIBUTION**

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

- LOCAL PDR Walhalla, S.C.  
1 - TIC (ABERNATHY) (1)(2)(10) - NATIONAL LABS \_\_\_\_\_  
1 - NSIC (BUCHANAN) 1 - W. PENNINGTON, Rm E-201 GT  
1 - ASLB 1 - CONSULTANTS  
1 - Newton Anderson  
 12 ACRS SENT TO Lic.  
**ASST. SHEPPARD - 2-4-75**

*Mrs 12*  
(4)  
1 - PDR-SAN/LA/NY  
1 - BROOKHAVEN NAT LAB  
1 - G. ULRIKSON, ORNL  
1 - AGMED (RUTH GUSSMAN)  
Rm B-127 GT  
1 - J. D. RUNKLES, Rm E-201  
GT

## DUKE POWER COMPANY

Regulatory Docket File

POWER BUILDING

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

A. C. THIES  
SENIOR VICE PRESIDENT  
PRODUCTION AND TRANSMISSION

P. O. Box 2178

January 29, 1975

Mr. Angelo Giambusso, Director  
Division of Reactor Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Re: Oconee Nuclear Station  
Docket Nos. 00-269, -270, -287

Dear Mr. Giambusso:

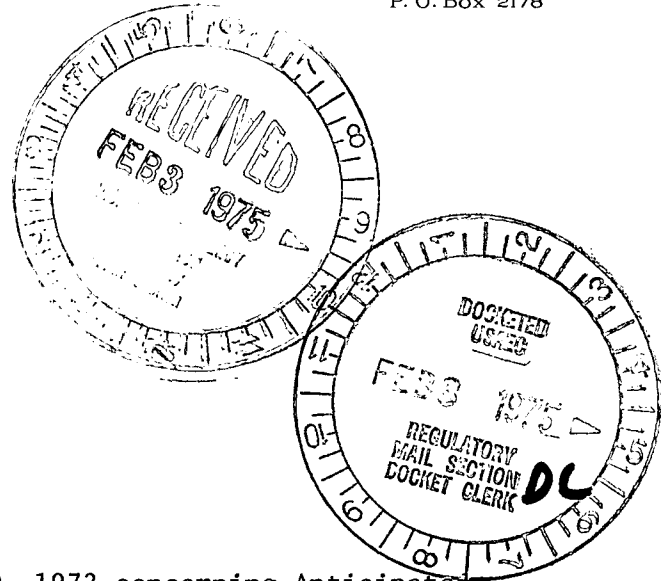
In accordance with your letter of October 9, 1973 concerning Anticipated Transient Without Scram (ATWS), and in compliance with the regulatory position set forth in WASH-1270 (Section 11C, Appendix A), the following analysis of ATWS consequences is provided for Oconee Nuclear Station.

The Babcock and Wilcox Company has submitted Topical Report BAW-10099, "Babcock and Wilcox Anticipated Transient Without Scram Analysis," to the Commission. This topical report provides analyses of the ATWS consequences for a generic 177 fuel assembly plant, similar to the Oconee units, for the following transients under postulated no reactor scram conditions:

- a. Pressurizer safety valve stuck open
- b. Loss of normal feedwater
- c. Loss of off-site power
- d. Two reactor coolant pump coastdown
- e. Rod withdrawal at power

The analyses indicate that, for the generic plant, core conditions are maintained within allowable cladding and fuel temperature limits for the safety valve stuck open accident, the rod withdrawal accident and the two pump coastdown accident. The generic plant analyses are representative of the Oconee units; thus, Oconee is also considered to meet those allowable parameters.

The analyses of the loss of normal feedwater accident and the loss of off-site power accident presented in the topical report show that the allowable Reactor Coolant System pressure is exceeded. Further analyses are performed which include the effects of a control rod runback from the



Mr. Angelo Giambusso  
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normal Integrated Control System (ICS) action that occurs upon the loss of normal feedwater, and the effects of a minimum dropped control rod reactivity insertion of 0.5%  $\Delta k/k$  for the loss of off-site power. The analyses performed, considering these reactivity insertions, show that the pressure transients for the generic plant are within allowable limits. The assumption of a control rod runback is considered valid due to the independence of the control and shutdown systems. A partial rod drop of only 0.5%  $\Delta k/k$  (approximately five rods) is considered conservative because of the extremely remote probability of a mechanical common mode failure of all control rod drive mechanisms which would prevent the release of rods in the event of loss of off-site power.

Although the Oconee plant differs from the generic plant primarily by having a smaller initial core power, greater initial steam generator inventory and smaller pressurizer relief capacity, the results stated in the topical report are considered to be typical of the Oconee plant.

It is concluded that by considering in total the inherent plant features, the time when the plant was designed, the low probability of occurrence for the ATWS events, and the calculated transient results, that the existing plant design represents an acceptable risk to the health and safety of the public.

Very truly yours,



A. C. Thies

ACT:vr