

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9101220479      DOC. DATE: 91/01/14      NOTARIZED: NO      DOCKET #  
 FACIL: 50-269 Oconee Nuclear Station, Unit 1, Duke Power Co.      05000269  
       50-270 Oconee Nuclear Station, Unit 2, Duke Power Co.      05000270  
       50-287 Oconee Nuclear Station, Unit 3, Duke Power Co.      05000287

AUTH. NAME                      AUTHOR AFFILIATION  
 TUCKMAN, M.S.                  Duke Power Co.  
 RECIPIENT NAME                RECIPIENT AFFILIATION  
    Document Control Branch (Document Control Desk)

SUBJECT: Dockets B&W 900823 ltr re results of generic analysis on 4-ft core elevation for 177 fuel assembly lower loop plants.

DISTRIBUTION CODE: A001D    COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 2  
 TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD2-3 LA	1    1	PD2-3 PD	1    1
	WIENS, L	2    2		1    1
INTERNAL:	ACRS	6    6	NRR/DET/ECMB 9H	1    1
	NRR/DET/ESGB	1    1	NRR/DOEA/OTSB11	1    1
	NRR/DST 8E2	1    1	NRR/DST/SELB 8D	1    1
	NRR/DST/SICB 7E	1    1	NRR/DST/SRXB 8E	1    1
	NUDOCS-ABSTRACT	1    1	OC/LFMB	1    0
	OGC/HDS2	1    0	REG FILE 01	1    1
	RES/DSIR/EIB	1    1		1    1
EXTERNAL:	NRC PDR	1    1	NSIC	1    1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,  
 ROOM PI-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION  
 LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 24 ENCL 22 0

*MA*

R  
I  
D  
S  
/  
A  
D  
D  
S  
  
R  
I  
D  
S  
/  
A  
D  
D  
S

Duke Power Company  
Nuclear Production Dept.  
P.O. Box 1007  
Charlotte, N.C. 28201-1007

M.S. TUCKMAN  
Vice President  
Nuclear Operations  
(704)373-3851



**DUKE POWER**

January 14, 1991

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287  
10 CFR 50.46(a)(3)

- References:
- 1) J. H. Taylor (B&W) to Dr. T. E. Murley (NRC), letter dated August 23, 1990 (JHT/90-126).
  - 2) H. B. Tucker (Duke) to NRC Document Control Desk, letter dated July 18, 1990.
  - 3) J. H. Taylor (B&W) to Dr. T. E. Murley (NRC), letter dated March 19, 1990 (JHT/90-43).

Gentlemen:

By letter dated July 18, 1990, Duke Power Company docketed Reference 3 regarding the results of a recent analysis of LOCA limits for the 177 Fuel Assembly (FA) Lowered Loop (LL) plants. As discussed in Reference 3, the results of the generic analysis at the 4 foot core elevation were provided in Reference 1. This letter is provided to docket Reference 1 for Oconee Units 1, 2, and 3.

To some extent Oconee deviates from the generic LOCA analyses. As a result, additional analyses were performed for the 4 and 6 foot core elevations to accommodate Oconee specific assumptions. At the 6 foot core elevation the LOCA Linear Heat Rate (LHR) limit was lowered to 16.1 kW/ft from the current limits of 16.5 kW/ft (0 - 1000 MWd/MTU) and 18.0 kW/ft (after 1000 MWd/MTU). Currently operating fuel cycles are not affected by this change, however Figure 3.5.2-16 of the Bases to the Oconee Technical Specifications (LOCA - Limited Maximum Allowable Linear Heat Rate) will require revision. This limit will be used for future fuel cycle designs.

The 4 foot core elevation was reanalyzed using the TACO3 computer code as an input to the ECCS evaluation model. This resulted in a decrease in peak cladding temperature (PCT) from 2160<sup>o</sup>F to 1786<sup>o</sup>F. As such, this change is reportable in accordance with 10 CFR 50.46. This change is entirely due to the change from the TACO2 computer code to TACO3. The B&W Owners Group Analysis Committee has discussed with the NRC use of the TACO3 computer code with respect to the Dougall-Rohsenow clause in 10 CFR 50 Appendix K. Since use of TACO3 is a change in an evaluation model input rather than a change to the evaluation model itself, continued use of the Dougall-Rohsenow correlation is acceptable for the B&W evaluation model.

9101220479 910114  
FDR ADOCK 05000269  
P FDR

Handwritten signature/initials: *Handwritten initials*

Very Truly Yours,

*M. S. Tuckman*

M. S. Tuckman

PJN/37

xc: S. D. Ebnetter, Regional Administrator  
U. S. Nuclear Regulatory Commission, Region II  
101 Marietta Street, NW Suite 2900  
Atlanta, GA 30323

L. A. Wiens, Project Manager  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
One White Flint North, Mail Stop 9H3  
Washington, D. C. 20555

P. H. Skinner, Resident Inspector  
Oconee Nuclear Station