

FILE: _____

FROM: Tennessee Valley Authority Chattanooga, Tennessee J. E. Gilleland		DATE OF DOC 2-20-74	DATE REC'D 2-23-74	LTR X	MEMO	RPT	OTHER
TO: A. Schwencer		ORIG 1 signed	CC	OTHER	SENT AEC PDR <u>XXX</u> SENT LOCAL PDR <u>XXX</u>		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: <u>50-438/439</u>		
DESCRIPTION: Ltr furn addl info re change in specific heat curve for UO2 fuel DO NOT REMOVE ACKNOWLEDGED PLANT NAME: BELLEFONTE UNITS 1 & 2				ENCLOSURES:			

FOR ACTION/INFORMATION 2-25-74 GMC

BUTLER(L) W/ Copies	✓ SCHWENCER(L) W/9 Copies	ZIEMANN(L) W/ Copies	REGAN(E) W/ Copies
CLARK(L) W/ Copies	STOLZ(L) W/ Copies	DICKER(E) W/ Copies	W/ Copies
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KNIEL(L) W/ Copies	SCHEMEL(L) W/ Copies	YOUNGBLOOD(E) W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

✓ <u>REG FILE</u> 2	<u>TECH REVIEW</u>	✓ <u>DENTON</u>	<u>LIC ASST</u>	<u>A/T IND</u>
✓ <u>AEC PDR</u> 2	HENDRIE	✓ <u>GRIMES</u>	DIGGS (L)	BRAITMAN
OGC, ROOM P-506A	✓ SCHROEDER	✓ <u>GAMMILL</u>	GEARIN (L)	SALTZMAN
MUNTZING/STAFF	✓ <u>MACCARY</u>	✓ <u>KASTNER</u>	✓ <u>GOULBOURNE (L)</u>	B. HURT
✓ <u>CASE</u>	✓ <u>KNIGHT</u>	BALLARD	LEE (L)	<u>PLANS</u>
✓ <u>GIAMBUSSO</u>	✓ <u>PAWLICKI</u>	SPANGLER	MAIGRET (L)	✓ <u>MCDONALD</u>
BOYD	✓ <u>SHAO</u>	<u>ENVIRO</u>	SERVICE (L)	DUBE w/Input
✓ <u>MOORE (L)(BWR)</u>	✓ <u>STELLO</u>	✓ <u>MULLER</u>	SHEPPARD (E)	<u>INFO</u>
DEYOUNG(L)(PWR)	✓ <u>HOUSTON</u>	DICKER	SMITH (L)	C. MILES
SKOVHOLT (L)	✓ <u>NOVAK</u>	KNIGHTON	TEETS (L)	B. KING
P. COLLINS	✓ <u>ROSS</u>	YOUNGBLOOD	WADE (E)	
DENISE	✓ <u>IPPOLITO</u>	✓ <u>REGAN</u>	WILLIAMS (E)	
✓ <u>REG OPR</u>	✓ <u>TEDESCO</u>	PROJECT LDR	WILSON (L)	
✓ <u>FILE & REGION(3)</u>	✓ <u>LONG</u>	✓ <u>DITTMAN</u>	S. REED (L)	
MORRIS	✓ <u>LAINAS</u>	HARLESS		
STEELE	✓ <u>BENAROYA</u>			
	✓ <u>VOLLMER</u>			

EXTERNAL DISTRIBUTION

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✓ 1 - DTIE(ABERNATHY)	✓ 1-ASLBP(E/W Bldg, Rm 529)	1-GERALD LELLOCHE
1 - NSIC(BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	BROOKHAVEN NAT. LAB
1 - ASLB(YORE/SAYRE/ WOODARD/"H" ST.	1-CONSULTANT'S NEWMARK/BLUME/AGBABIAN	1-AGMED(Ruth Gussman) RM-B-127, GT.
✓ 16 - CYS ACRS MOLDING	1-GERALD ULRIKSON...ORNL	1-RD..MULLER..F-309 GT
Sent to Lic Asst Goulbourne 2-25-74		

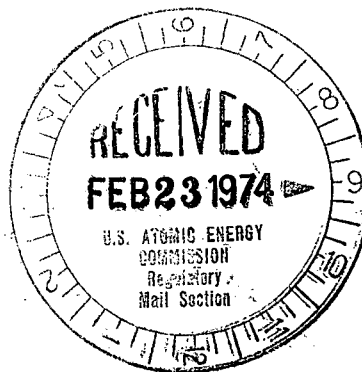
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TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE
37401

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February 20, 1974



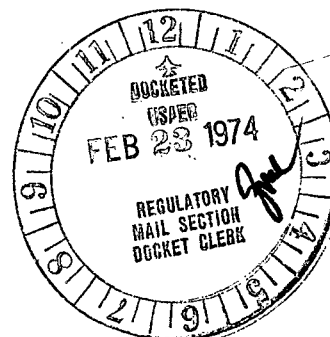
Mr. A. Schwencer, Chief
Light Water Reactors Branch 2-3
Directorate of Licensing
Office of Regulation
U.S. Atomic Energy Commission
Washington, DC 20545

Dear Mr. Schwencer:

In the Matter of the Applications of) Docket Nos. 50-438
Tennessee Valley Authority) 50-439

B&W has notified us of a change they are making in the specific heat curve for UO_2 fuel as utilized in some of their transient computer codes. This change will be reflected in a higher value of the specific heat for elevated fuel temperatures.

The studies necessary to quantify the impact that this revision may have on the safety analyses reported in the SAR are under way. The general effect will be a change in the level of stored energy in the fuel as well as in the time response of some transients. Based on B&W's present evaluation, this revision will not affect the steady-state analysis because the basic data from which the curve is derived are valid; it is these basic data that are used for the steady-state calculations. The particular effect on kinetic behavior can be determined only by safety analysis. To indicate the magnitude of this revision, preliminary calculations on Oconee 2 show that a reduction in the maximum linear heat rate of less than 1.0 kW/ft should offset the effects of this change in specific heat.



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Mr. A. Schwencer

February 20, 1974

We will keep you advised on the status of B&W's continuing investigation. We understand that B&W will be discussing this information with you on a generic basis in an effort to keep you fully informed of further developments.

Very truly yours,



J. E. Gilleland

Assistant to the Manager of Power

CC: Mr. James L. McFarland
Senior Project Manager
Babcock and Wilcox Company
P.O. Box 1260
Lynchburg, Virginia 24505