

Mr. James Taylor  
Manager, Licensing  
Babcock & Wilcox Company  
Nuclear Power Generation  
P.O. Box 1260  
Lynchburg, VA 24505

DRAFT:5/3/77

Dear Mr. Taylor:

Since the issuance of the staff status reports on the vendors' ATWS evaluations, the industry has raised concerns with what they believe to be excessive status reports' requirements. The staff intent to remain open minded and to reach a balanced resolution to the ATWS question led to the establishment of the NRC-wide task force headed by Steve Hanauer. It is our hope that the ATWS problem will be resolved shortly and in this regard the staff has initiated a simplified study to approximately determine the probability of exceeding ATWS criteria by a probabilistic treatment of the selected values of initial conditions. The purpose of this study is to better understand the requirements of the status reports.

In order that we complete our ATWS assessment this summer, we request that you provide within one month a set of calculations using the set of assumptions described in the enclosure. We strongly recommend that you do your part in bringing this problem to an end by providing the requested information in a timely fashion.

Sincerely,

Denwood F. Ross, Jr., Assistant Director  
for Reactor Safety  
Division of Systems Safety  
Office of Nuclear Reactor Regulation

8104170457

Enclosure:  
Set of Assumptions

cc: S. Hanauer  
R. Heineman  
W. Minners

Concur: AT/GM/TN/DR

PDR

ATWS

ATWS  
Babcock & Wilcox Set of Calculations

Run	<u>Power</u> A	<u>Tav</u> B	<u>MTC</u> C	<u>Doppler</u> D	<u>Gap</u> E	<u>SGI</u> F
1	0	0	0	0	0	0
2	+	+	+	+	+	+
3	+	+	+	+	+	+
4	+	+	+	+	+	+
5	+	-	-	-	-	-
6	-	-	-	-	-	-
7	-	+	-	+	-	+
8	-	+	-	+	-	+
9	-	-	+	-	+	-
10	0	-	+	+	-	+
11	0	0	0	0	0	0

# INITIAL CONDITIONS

Levels	Power	T <sub>AV</sub> <sup>0</sup> F	PCM MTC	ΔK/K/ <sup>0</sup> F Doppler	Mils Gap	lbm Total SGI	Sec. AFW <sup>(1)</sup>	Ft <sup>3</sup> RCS	PL <sup>(2)</sup>
+	104%	0+4	-5	0+25%	0+60%	0+5%	0+20	0+5%	0+4%
-	96%	0-4	-15	0-25%	0-60%	0-5%	0-10	0	0
0	100%	0	0	0	0	0	0	0	0

## Reference Case

### Pressurizer Total Relief & Safety Valve Flow

Area should include four additional safety valves.

Ten percent pressurizer relief & safety valve water accumulation should be used.

0 - Reference Value

(1) - Auxiliary Feedwater Actuation Time

(2) - Pressurizer Level

D. Bunch	F. Odar
F. Cherny	L. Olshan
R. Easterling	H. Ornstein
D. Eisenhut	H. Richings
B. Grimes	D. Ross
S. Hanauer	F. Schroeder
W. Hazelton	J. Scinto
R. Heineman	K. Seyfrit
D. Hood	M. Taylor
M. Kehnemuyi	R. Tedesco
G. Lainas	A. Thadani
C. Miller	W. Vesely
W. Minners	R. Vollmer
J. Murphy	I. Wall
T. Novak	G. Wrobel

DUPE

8104170370

ATWS DISTRIBUTION LIST

APR 14 1977

G. Arlotto  
R. Baer  
R. Boyd  
D. Bunch  
E. Case  
W. Dircks  
R. Easterling  
D. Eisenhut  
B. Grimes  
J. Guibert  
S. Hanauer  
R. Heineman  
D. Hood  
E. Imbro  
M. Kehnemuyi  
H. Krug  
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M. Taylor  
A. Thadani  
S. Varga  
W. Vesely  
R. Vollmer  
I. Wall  
S. Weiss  
G. Wrobel

DUPLICATE

Dupe A  
8104170260