



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 7, 1979

MEMORANDUM FOR: Paul S. Check, Chief
Reactor Safety Branch

FROM: Newton Anderson, Senior Reactor
Safety Engineer
Systematic Evaluation Program Branch

SUBJECT: FREQUENCY OF OCCURRENCE OF FEEDWATER TRANSIENTS
FOR BABCOCK & WILCOX, WESTINGHOUSE AND COMBUSTION
ENGINEERING

I have been concerned that staff comparisons of feedwater transients have been based on LER's and may be misleading.

My concern is based on (1) feedwater transients would only be reported in LER's if they resulted in a technical specification violation, and (2) it seems to me that B&W feedwater transients would result in a technical specification violation more often than Westinghouse or Combustion Engineering due to design differences.

I have reviewed gray book data on plant shutdowns for the one-year period from March '78 to March '79 and identified forced shutdowns which were initiated by, or involved malfunctions of the feedwater system. I did not include normal shutdowns to make repairs to feedwater systems. I believe the frequencies compiled in this manner are reasonably correct. The results were:

- (1) 9 B&W plants had 27 feedwater transients or 3.00 per year, per plant;
- (2) 24 Westinghouse plants had 44 feedwater transients or 1.83 per year, per plant; and,
- (3) 7 Combustion Engineering plants had 13 feedwater transients or 1.85 per year, per plant.

The frequency of feedwater transients is not appreciably higher (about 60%) for B&W. The difference may be at least partially due to the newness of the B&W plants as compared to Westinghouse and Combustion Engineering.

Newton Anderson
Newton Anderson, Senior Reactor
Safety Engineer, SEPB

555328

cc: D. Davis
D. Allison
R. Tedesco
D. Eisenhut
J. Watt

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