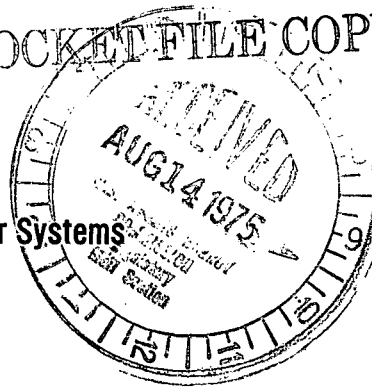




Westinghouse Electric Corporation

Power Systems



Box 355  
Pittsburgh Pennsylvania 15230

August 8, 1975

NS-CE-743

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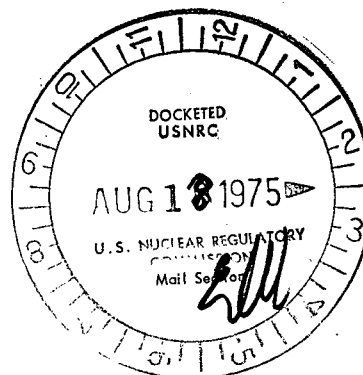
Mr. D. B. Vassallo, Chief  
Light Water Reactors Project Branch 1-1  
Division of Reactor Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
7920 Norfolk Avenue  
Bethesda, Maryland 20014

50-286/334

Dear Mr. Vassallo:

Enclosed are thirty-five (35) copies of acceptable instrument (transmitter) accuracy tolerances applicable to Beaver Valley Unit 1 and Indian Point Unit 3 nuclear plants. These accuracy tolerances are applicable to those transmitters located inside the containment which perform protective functions (e.g., reactor trip, safety injection) required to mitigate the consequences of postulated accidents. The tolerances are for the short-term situation during which the transmitter performs its protective function.

To facilitate interpretation of the enclosed table, for several of the transmitter functions (Pressurizer Level, Steam Line Flow, Steam Generator Level) an allowable accuracy was not delineated in a specific direction (positive or negative). For these transmitters deviations in the unspecified direction result in an earlier trip and/or safety injection signal which is conservative with respect to the case of no transmitter inaccuracy. As an example, a high steam line flow signal is required for steam line break protection; any environmentally caused deviation in the direction of high steam flow will result in an earlier (hence, more safe) trip. The accuracy tolerances for the remaining transmitters are, however, bounded in both directions. In these cases, a conservative unbounded directional tolerance cannot be identified, since these transmitters may provide trip functions for more than one postulated accident condition.



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Mr. D. B. Vassallo, Chief

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For example, an environmentally-induced deviation in the negative direction is conservative for the Pressurizer Pressure function under postulated loss-of-coolant accident conditions. On the other hand, in the case of a feedline break accident, the high Pressurizer Pressure trip may be actuated and an unbounded environmentally-induced deviation in the negative (low) direction would not be conservative.

This submittal is intended to meet the Westinghouse commitments contained in Item 1 (with respect to Beaver Valley Unit 1 and Indian Point Unit 3) of Subprogram B, Process Instrumentation and Control Equipment, for WCAP-7410L and 7744, "Environmental Testing of Engineered Safety Features Related Equipment". If you have questions or comments concerning this submittal, Westinghouse will be pleased to meet with you at your convenience.

Sincerely



C. Eicheldinger, Manager  
Nuclear Safety Department

dk  
Enclosure

ENCLOSURE

ALLOWABLE SHORT TERM ACCURACY TOLERANCES, FOR  
IN-CONTAINMENT TRANSMITTERS THAT INITIATE PROTECTIVE  
FUNCTIONS TO MITIGATE CONSEQUENCES OF POSTULATED  
ACCIDENTS

ALLOWABLE SHORT TERM ACCURACY TOLERANCES FOR IN-  
CONTAINMENT TRANSMITTERS THAT INITIATE  
PROTECTIVE FUNCTIONS TO MITIGATE CONSEQUENCES  
OF POSTULATED ACCIDENTS

TRANSMITTER FUNCTION	PRESSURIZER PRESSURE (% of span)	PRESSURIZER LEVEL (% of span)	NARROW RANGE RTD (% of span)	STEAM LINE FLOW (% of span)	STEAM GENERATOR LEVEL (% of span)
ACCURACY (% of span)	$\pm 10\%$	$+ 10\%$ <sup>(1)</sup>	$\pm 5\%$	$- 10\%$ <sup>(2)</sup>	$+ 0\%$ <sup>(1)</sup>

- (1) No negative accuracy tolerance is assigned to the Pressurizer Level and Steam Generator Level Transmitters since negative errors during postulated accidents that result in containment environmental transients are in the conservative direction and would result in earlier protective function initiation.
- (2) No positive accuracy tolerance is assigned to the Steam Line Flow transmitter per the same reasoning as in footnote 1 except for positive errors.