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Mr. Victor Stello, Jr.
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Stello:

SUBJECT: ACRS COMMENTS ON THE BABCOCK & WILCOX (B&W) OWNERS GROUP
SAFETY AND PERFORMANCE IMPROVEMENT PROGRAM

During its 315th meeting, July 10-12, 1986, the Advisory Committee on Reactor Safeguards discussed the B&W Owners Group Safety and Performance Improvement Program. The ACRS Subcommittee on Babcock & Wilcox Reactor Plants met in Washington, D.C. on June 25, 1986 to discuss the program. The Subcommittee had the benefit of discussions with representatives and consultants of the B&W Owners Group (BWO) and the NRC Staff. We also had the benefit of the documents listed.

Recent events at some B&W plants have resulted in increased NRC concern regarding the frequency of reactor trips and complexity of the transients in B&W plants. These concerns have led the NRC Commissioners and the Staff to call for a broad reassessment of B&W plants to assure that they provide acceptable levels of safety. At the request of the Staff, the BWO has taken a lead role in performing the reassessment.

At the time of our Subcommittee meeting the BWO program's main emphasis seemed to be directed at improving plant on-line performance, rather than addressing the safety objectives of the NRC-B&W reassessment initiative. Our review of this program indicates that it may lead to improved plant on-line performance; however, we are concerned that plant safety does not appear to be its central focus. We believe it should be. While it is true that improved plant performance could represent safer operation, that is not an inescapable outcome.

We offer the following additional observations and recommendations:

1. An examination of the operating history of B&W plants indicates that three B&W plants, operated by one utility, have operated with little cause for concern. The incidents that have produced concerns have occurred at plants operated by several other utilities. It seems logical, in seeking root causes of substandard performance, to look at the effect of operating organizations on system performance, rather than concentrating entirely on system design.
2. There is the observation, primarily from analysis but partially confirmed by experience, that B&W systems respond differently, perhaps less favorably, to upsets than do the pressurized water reactor (PWR) plants with Combustion Engineering or Westinghouse reactor systems. This should not be surprising -- they were designed to respond differently. The once-through steam generator, the integrated control system, and different piping arrangements and auxiliary capacities give a nuclear steam supply system that is

more quickly responsive to load changes and other external challenges than the other PWRs. Whether, from the perspective of safety, this is good, bad, or indifferent is not yet clear. The NRC Staff and the BWOOG should focus on this observation and come to an engineering determination as to its significance.

3. We are concerned that apparently little attention is being given to decay heat removal. We note that, even given a complex transient, if the ability to trip the reactor and remove decay heat is preserved the ability to protect the public is ensured.

We expect to meet again with the BWOOG and the NRC Staff to continue discussions.

Sincerely,

David A. Ward
Chairman

References:

1. B&W Owners Group Trip Reduction and Transient Response Improvements Program, BAW-1919, Revision 00, May 1986
2. Letter from D. Crutchfield, NRC, to H. Tucker, BWOOG, Subject: B&W Design Reassessment, dated June 2, 1986
3. Letter from H. B. Tucker, BWOOG, to C. Wylie, ACRS, Subject: B&W Owners Group Safety and Performance Improvement Program, dated July 101, 1986

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