



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D. C. 20555

November 22, 1983

Mr. William J. Dircks  
Executive Director for Operations  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Dircks:

SUBJECT: GENERIC ISSUE B-10, HYDRODYNAMIC LOADS ON MARK III CONTAINMENT STRUCTURES

During its 283rd meeting, November 17-19, 1983, the ACRS heard a report from the NRC Staff on the proposed final resolution of Generic Issue B-10. This issue is concerned with the definition of hydrodynamic loads that may be experienced by Mark III containment structures during large break loss of coolant accidents. A subcommittee of the ACRS had previously reviewed work on this issue during its meetings on September 24-25, 1981, January 22, 1982, and July 29-30, 1982. In addition, we had the benefit of a draft of NUREG-0978, "Technical Evaluation Report on Mark III LOCA-Related Hydrodynamic Load Definition." The ACRS had also, within the past two years, reviewed and favorably commented on the definitions of hydrodynamic loads for three specific plants which incorporated containments of the Mark III design; namely, Grand Gulf Unit 1, Clinton Unit 1, and Perry Unit 1.

We believe the assumptions and methodology presented in draft NUREG-0978 are an appropriate basis for the generic definition of LOCA-related loads for Mark III containments. We believe that the loads defined by these means will be sufficiently conservative to provide assurance of the integrity and reliability of essential containment systems during a LOCA.

While there are some indications of large conservatisms in the load definitions, we believe it would be inappropriate to reduce such conservatisms unless supported by additional experimental and analytical work. It is our understanding that there is now little incentive for such further work because the conservative loads can be satisfactorily accommodated by the existing structures and designs for Mark III containments.

Sincerely,

A handwritten signature in black ink, appearing to read "J. J. Ray".

J. J. Ray  
Chairman