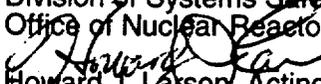




UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D.C. 20555-0001

December 22, 1999

MEMORANDUM TO: John N. Hannon, Chief  
Plant Systems Branch  
Division of Systems Safety and Analysis  
Office of Nuclear Reactor Regulation

FROM:   
Howard J. Larson, Acting Associate Director  
for Technical Support  
Advisory Committee on Reactor Safeguards/Advisory Committee  
on Nuclear Waste

SUBJECT: NRC/INDUSTRY COLLABORATIVE PROJECT TO SUPPORT  
RESOLUTION OF WATERHAMMER ISSUES PURSUANT TO  
GENERIC LETTER 96-06

During the 468<sup>th</sup> meeting of the Advisory Committee on Reactor Safeguards, December 2-4, 1999, the ACRS heard a report from its Subcommittee on Thermal-Hydraulic Phenomena which met on November 17, 1999, and considered the collaborative project, involving the NRC, Electric Power Research Institute (EPRI) and associated contractors, and several nuclear power plant licensees, to address resolution of issues associated with potential waterhammers in the cooling water systems of containment air coolers, pursuant to NRC Generic Letter 96-06. The results of this project have been documented in a draft EPRI Interim Report: "Resolution of Generic Letter 96-06 Waterhammer Issues."

As a result of its discussion of this matter, the Committee asked me to provide you the attached comments from Dr. G. Wallis, Thermal-Hydraulic Phenomena Subcommittee Chairman, and ACRS Consultants N. Zuber and V. Schrock for the staff's consideration during its ongoing review of the EPRI Interim Report. Please note that the views expressed in these reports do not necessarily reflect those of the ACRS. The Committee plans to review the subject matter during a future meeting.

References:

1. U. S. NRC Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions, September 30, 1996.
2. Electric Power Research Institute Interim Report TR-113594, Volumes 1 and 2, "Resolution of Generic Letter 96-06 Waterhammer Issues," July 1999 (EPRI Proprietary).

Attachments:

1. Memorandum dated November 30, 1999, from Graham B. Wallis, ACRS, to ACRS Members, Subject: Comments on EPRI Interim Report, TR-113594, "Resolution of Generic Letter 96-06 Waterhammer Issues."
2. Memorandum dated November 23, 1999, from N. Zuber, ACRS Consultant, to G. B. Wallis, Chairman, Thermal-Hydraulic Phenomena Subcommittee, ACRS, Subject: ACRS Thermal-Hydraulic Subcommittee Meeting: "Resolution of Generic Letter 96-06, Waterhammer Issues."

Mr. Vaughn Wagoner

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order to assist you in pursuing this initiative, I have enclosed the comments that we received from the ACRS, as well as comments that we received from our Sciencetech consultant, and NRC staff comments. We are available to discuss these comments with you, and we remain optimistic that with some additional work and restructuring, an acceptable approach can be achieved.

Sincerely,



John N. Hannon, Chief  
Plant Systems Branch  
Division of Systems Safety and Analysis  
Office of Nuclear Reactor Regulation

Enclosures:

1. Memorandum to John N. Hannon from Howard J. Larson dated December 22, 1999, re: ACRS review of EPRI Interim Report TR-113594.
2. **[comments from Hossein]**
3. NRC staff comments re: EPRI Interim Report TR-113594.

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