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DEPARTMENT OF NUCLEAR ENGINEERING

December 3, 1979

Dr. Milton Plesset Chairman, ACRS Fluid Dynamics Subcommittee Professor of Engineering Science, Emeritus California Institute of Technology Pasadena, CA

Dear Milt:

You asked the consultants to give you written comments on the November 16 meeting of the subcommittee.

My overall impression was that the approach being taken by the NRC and the Mark I Owners' Group is reasonable and will probably lead to adequate assurance of safety. Without studying the transcript of the meeting and much of the supporting documentation, I am not in a position to take a positive stand on any particular issue.

The major question appears to be whether the Owners' Group should be expected to provide more data from the FSTF to assure that condensation loads are conservatively specified. The arguments against this requirement were not thorough enough to convince me that they are sufficient. I believe the question must be evaluated much more carefully before it can be resolved. I do believe that the phenomena are not ighly reproducible and therefore, many tests may be required to discover an upper bound.

I thought the discussion of vent header deflectors was interesting. For the reason I stated at the meeting, I don't think the seaplane landing is too close an analogy. Such deflectors are probably a good idea. What I didn't understand is how exactly they will relieve other problems. Forces on the downcomers will be modified and possibly aggravated. Is the force on the ring header expected to be eliminated altogether? These points may well have been covered previously.

Again, I would hope that you consider my comments in relation to the limited involvement I have had on the subcommittee.

Sincerely,

Virgil E. Schrock

Professor