CT-2097
PDR 3/25/94

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

October 13, 1993

MEMORANDUM TO: Paul Boehnert, Senior Staff Engineer
Nuclear Reactors Branch

FROM: Virgil Schrock, ACRS Consultant

SUBJECT: COMMENTS ON JULY 22-23, 1993 THERMAL HYDRAULIC PHENOMENA SUBCOMMITTEE MEETING

The Westinghouse response to questions raised in the ACRS consultants' reports was approached by simply listing the comments and then talking about them. No carefully prepared written response was provided. The issues in some cases were set down out of context of the reports and discussion at the related meetings. The meetings the reports addressed were meetings between NRC staff and Westinghouse and its contractors from Italy. The staff had many valid concerns that were supported by the ACRS consultants but not repeated in their reports. There is a need to identify and address all the issues, and I think this should have been presented to the ACRS Subcommittee. Westinghouse oral responses tended, in some cases, to be a bit flip--"We don't have an answer for you now, but will provide one later." The form of the Westinghouse response sets a poor precedent for future ACRS meetings. This inadequate means of communicating technical information should not be allowed as it is wasteful of resources while being ineffective. It is not in the interest of Westinghouse or the NRC to proceed in this manner.

It is a very positive step that NRR has taken to develop in-house capability to use the big codes for its own assessment. My questions concerning the depth to which this activity includes assessment of the models in the codes came from a concern that the critical assessment of models by others has not been adequate (not led to substantive improvements in the quality of the models). The

level of effort at NRR does not suggest that it will change this situation in a substantial way. The weaknesses in the codes should identify needed research, including separate effects experiments, that could eventually produce satisfactory models. RES has heard this point of view over and over again but still has no systematic and effective program of code model improvements. Instead they argue that it is necessary to employ nonphysical models to produce a running code. I applaud the NRR effort, while at the same time emphasizing that it is too small an effort (perhaps involving people who are not too well oriented towards understanding the physics of the problems) to produce a significant improvement in the current assessment of models and identification of the research needs for new engineering approaches.