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AUG 01 1983

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MEMORANDUM FOR: James P. Knight, Assistant Director for Components and Structures Engineering, DE

FROM: R. Wayne Houston, Assistant Director for Reactor Safety, DSI

SUBJECT: DE SUPPORT FOR REVIEW OF GESSAR-II PRA

On July 26, 1983, a meeting was held by staff review members from DE, DST and DSI to discuss the coordination of the review of the GESSAR-II PRA, in particular, the review of the MK-III containment loading and failure during severe accidents. During this meeting, a need was identified for the performance of computer analyses of the MK-III containment structural response during severe accident conditions, including those caused by hydrogen combustion and detonation. These analyses would provide an independent audit of the containment failure modes assumed by GE in their PRA and are needed in the staff's assessment of risk for the GESSAR-II design. The results of the calculations would be used by the Containment Systems, Reactor Systems and Accident Evaluation Branches of DSI in the determination of fission product release and plant risk.

I request your support of this effort. It is my understanding that DE presently has a technical assistance contract with Brookhaven National Laboratory (BNL) to perform structural analyses and that this contract might be supplemented with additional funding and revised to include the analyses needed for GESSAR. It is estimated that \$50,000 would be sufficient for this effort. Based on Jesse Funches' July 21, 1983, memo to the NRR directors regarding year-end funding, it would appear that there is adequate funding available for this effort. My staff will follow up on this item with the Planning and Program Analysis Staff of NRR. Since BNL is providing the major contractor support to DST and DSI for the review of the GESSAR-II PRA, selection of BNL to support DE in the structural analysis area should help in the coordination of the overall review effort.

Original signed by

R. Wayne Houston, Assistant Director  
for Reactor Safety, DSI

cc: R. Mattson      S. Chan  
J. Funches      J. Lane  
R. Vollmer      J. Read  
G. Lear      D. Scaletti  
W. Butler      J. Meyer  
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