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JUL 08 1982

MEMORANDUM FOR: Stephen Hanauer, Director, Division of Safety Technology

FROM: Roger J. Mattson, Director, Division of Systems Integration

SUBJECT: TREATMENT OF EXTERNAL EVENTS FOR THE GESSAR PRA

Reference: Letter, Thadani to Hanauer, 6/21/82

I disagree with the apparent thrust of the referenced memorandum. In particular, I feel that external events should be included in standard plant PRAs, the GESSAR-II PRA being no exception. If recent PRA studies are indicative of risk trends, then external events will continue to dominate. By excluding external events from consideration, we would have no way of judging the relative susceptibility of these standard plants to external events beyond the design basis—an important ingredient in an overall severe-accident rulemaking assessment.

I recognize that much of the methodology is not in place and costs for calculation are expensive. Nevertheless, I feel we should carefully consider ways to incorporate the impact of external events into the PRA analysis. For example, for the case of seismic, a family of hazard curves could be considered, fragilities determined, and impact on the PRA risk values assessed. The results could possibly be used to impose restrictions on the FDA.

In any event, this important matter needs attention. I suggest a meeting to discuss this matter further.

Original signed by:

Roger J. Mattson, Director
Division of Systems Integration, NRR

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