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Dear Dean:

Following are my comments on the meeting of the PRA subcommittee of the ACRS held in Bethesda on May 11, 1993:

The Working Group of the NRC, appointed to study the use of PRA by NRC staff and to recommend improvements in its application to the regulatory process has collected information on who is using PRA related techniques and has made recommendations for improvements in their application.

Unfortunately the Working Group, perhaps of necessity, chose to limit its investigation to existing users and their applications, and thus left unexamined some of the more important questions about the application of PRA related techniques by the regulatory staff.

It is hard to improve on John Garrick's characterization of the Working Group's report, "The fundamental questions of why and how NRC should use PRA have not been answered". I would add that they have not only not been answered, they have not even been asked! Without an answer to these basic questions, this report is of necessity only a beginning, and not a very meaningful one at that.

However, even with the limited scope chosen by the Working Group there are questions that are not treated, or are treated unsatisfactorily. Among these are the following:

1. How are the IPES of the individual units (in many cases these include a Level 1 PRA) to be used by the staff? The report indicates that a review process for IPES has been developed, but that the use of the results of the IPRs is yet to be determined? How can the review process identify and judge the results that will be important to the staff if the staff has not yet determined what these are?
2. Are the Unit IPES to be used by the resident inspectors (RI)? It would appear that a careful study of the Unit IPE would provide an ideal introduction to the unit for an incoming RI. It should also be invaluable as a source of information on the operating unit for whoever is on duty as RI. Of course if it is to be used for these purposes, the RIs must have some

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understanding of PRAs.

3. Are the NRC project managers required to become familiar with the IPEs for the plants that are assigned to them? If they are to do anything other than "manage" it would appear that they would find these IPEs valuable.

4. How does the staff propose to interpret the term core damage (CD)? In discussions with the staff the ACRS has heard the term used to mean everything from reaching a clad temperature of 2200 degrees F, to core on the floor of containment. Clearly the probabilities are different. It would make less likely misunderstandings and mistakes in comparison of results if the term were to be given an unambiguous interpretation.

5. Garrick comments that the staff is ill informed concerning both commercial PRAs that exist and the techniques and approaches that have been developed commercially. If this is true is the staff planning to make use of these resources in the future? How do the results of commercial PRAs agree with or disagree with those that the staff has sponsored?

6. It appears to me that the present regulations, most of which were developed before the Reactor Safety Study was published, and which make no reference to quantitative measures of reliability or risk, make it difficult to use quantitative measures of reliability in the regulatory process. Perhaps the Working Group members disagree. If they agree, this should at least be mentioned in the report.

7. I do not understand the point that Beckjord is making in his memorandum to Larkin of April 20, 1993. It appears, however, that the staff has abandoned any effort to develop the guidance promised in the Commission's Severe Accident Policy Statement. This is based on a belief that somehow this guidance will evolve in the process of design certification for the ABWR. This is discouraging!

The Working Group report represents a modicum of progress in the staff's efforts to incorporate the previously neglected capabilities inherent in quantitative risk analysis. They must be encouraged toward greater efforts!

Sincerely,

Bill Kerr
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