

D911214

The Honorable Ivan Selin
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Selin:

SUBJECT: THE CONSISTENT USE OF PROBABILISTIC RISK ASSESSMENT

In a letter to us dated October 1, 1991, the Executive Director for Operations (EDO) disagreed with most of the observations in our letter to you of July 19, 1991, on consistency in the use of PRA. We assume that he does not speak for the Commission, but do feel a need to clarify our meaning. We will key this letter to the seven bullets in his letter, but note that we do not agree with his final conclusion that "it does not appear that major problems now exist in the use of probabilistic risk assessment by the staff." The four recommendations at the end of our letter were, of course, addressed to you, so he did not mention them.

He seems to have misunderstood our concerns about the uneven level of sophistication, and thinks we were addressing the level of complexity. Of course we were not suggesting that one do a complete NUREG-1150 study on each minor issue. Our concern was with instances of low quality, not the page count. We do not agree that the current pattern is "entirely appropriate."

He makes an unclear distinction between point estimates and best estimates, and states that when "no data are available ... only conservative estimates are possible." That is not correct. There are no conditions under which conservative estimates are appropriate to an analysis designed to reveal actual risk. Conservative estimates are appropriate only for bounding analyses, but this has nothing to do with the availability of the data. This has been a problem for years, and apparently still is.

Here he deals with uncertainty analysis much as in the first bullet, again using the word "appropriate." See our comments above.

He says that the staff is "well aware of the uncertainty and unreliability of PRA," but uncertainty and unreliability are two entirely different concepts. We never used the word unreliability. Further, he states that it is not "practical at this time" to move toward formal decision-making algorithms in the cases in which it is possible.

We commend his efforts to improve the PRA capabilities of the staff. We hope it bears fruit.

In response to our observation about the need for staff enhancement in these skills, he says that personnel with the relevant backgrounds are at a premium, but that he is trying. But he also says that "staff resources must be carefully prioritized to optimize their influence." That is subject to many interpretations, ranging from a platitude to a statement that he doesn't believe this subject is important. We have seen recent NRC recruiting ads with a list of disciplines needed, and these are not among them.

He says that he is working to recruit people with expertise in digital instrumentation and control systems. However, one of his senior managers told us last month that the staff had adequate expertise and needed no more.

We ask only that you note these observations, and pass them on to the EDO.

We do note that a middle-level management group is currently being organized to review the staff's PRA activities. We recommended a much more ambitious approach to you, but even in this one we urge you to make sure that it includes some of the few statisticians on the staff.

Sincerely,

David A. Ward
Chairman