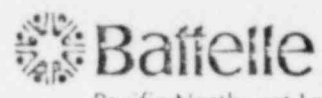


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137 2-0 1981



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November 13, 1981

Mr. Frank D. Coffman
Systems Interaction Section
Reliability & Risk Assessment Branch
Division of Safety Technology, NRR
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: DRAFT OF INITIAL GUIDANCE

Dear Frank:

We have reviewed in detail the October 1, 1981 draft of Chapters 5 and 6 and Appendix A. A copy is enclosed with our comments marked in. Some of the more general and substantive comments follow:

General Comments

1. It is somewhat difficult to review these sections out of context with what may or may not be in the rest of the document. For example, one of the key issues for the pilot review is reduction of scope. Our August submittal to you incorporated words recognizing an earlier section on negotiation dealing with scope reduction. Our Chapter 5 then dealt with options to further refine the scope as necessary. ~~The current draft gives no indication of the basic scope definition efforts.~~

Another important effort not covered in this draft is the ~~Agency's program plan for the pilot review.~~ Presumably, this will be covered earlier. It is essential that it be addressed.

2. The draft is inconsistent in not maintaining a clear distinction between what is required for the pilot review and what may be required for the ultimate reviews. As we understand it, this document establishes guidelines for the pilot review only. For example, the guidelines require a detailed assessment to select systems based on "importance." Is that really essential for a pilot review? ~~The example procedure requires a detailed risk-type evaluation of the systems interactions identified. Yet, the evaluation area was to be downplayed in the pilot reviews.~~



please clarify what constitutes "clear and crisp"

3. In general, the guidelines are not clear and crisp. You have to search to find what the guidelines are in certain sections, and in several cases they are confusing at best. Sections 5.1.1 and 5.1.2.1 are particularly fuzzy.
4. In our August draft, we tried to clearly state the guidelines (in terms of "should", not "shall" or "will" or "must") for the minimum effort expected. Then we described some options, usually involving additional effort, that the utility may want to consider. I still believe a discussion of these options with their pros and cons would be helpful to the utilities involved in planning a program that provides maximum benefit to all parties involved.
5. ~~These draft guidelines and the suggested procedures give little or no credit to the other related work utilities may have under way or completed.~~ I believe it is essential to the credibility of these guidelines that the interfacing of SI reviews with this other work be reflected.
6. For the most part these guidelines, and the proposed procedure in particular, are written for a PRA-type analyst. I do not believe that the analyst per se is going to find many of the subtle couplings we are looking for. The analyst is essential to assist the utility engineering/operating staff and A-E/NSSS staff in narrowing the scope and identifying the interactions. The analyst is probably most useful in assessing the important SI's once they are identified. But that is the least important part of the pilot review. *not necessarily so!*
7. These guidelines ~~imply~~ we are looking for ~~couplings within a single system~~ not just between systems. I recognize the concern that utilities could define away their problems by redefining their systems. Also, I agree that couplings internal to a system are important. However, the systems are defined in the SAR and are therefore not subject to being defined away. Whether or not the scope of SI review should be expanded to include single systems is an NRC decision. But it very substantially expands the scope of the effort originally envisioned for SI. ~~It may be important at this stage for the NRC to determine how important it is to look for intrasystem interactions as part of the overall NRC review of plants.~~

Specific Comments

Section 5.1.1 - Selection of Systems

This section is ~~inconsistent~~. First, it implies a fairly rigorous assessment based on importance. Then, it warns away from looking at the high-risk issues, which presumably most people would link to importance. Finally, it suggests engineering judgements and a look at non-safety grade systems.

Section 5.1.2.4 - Use of Simulators

I agree that simulators may be ~~helpful in understanding the consequences~~ of SI's. However, their usefulness in identifying adverse SI's is limited almost by definition. It assumes that the simulator is built as an exact duplicate of the plant, which requires total knowledge, understanding, and ability to exactly model the plant. If we could do all that, there would be no unintended SI's in the plant in the first place.

Section 5.2 - Proposal Procedure

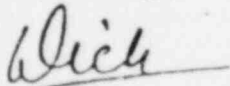
I would still suggest this as an appendix to the guidelines. As it is now, the clear implication is that this is what is required for the pilot review. I believe that is unrealistic for two reasons. First, it is much ~~too thorough and expansive for a pilot review~~. It is a typical PRA, only more so if the objectives of SI are to be accomplished. Secondly, it is an analyst's approach, not reflecting the essential involvement of other groups as discussed in item 6 above.

Section 6.1 - Utility Report

I believe it is extremely important that ~~the abilities involved assess the effectiveness of the guidelines themselves~~ in addition to the other assessments requested.

I hope these comments will be helpful to you, Frank, in your efforts to get this pilot review program initiated. We look forward to continuing to assist you in these efforts this next year.

Sincerely,



R. D. Widrig
Project Manager

RDW:llm

cc: P. Cybulskis, BCL
J. DeSteese
R. Gallucci