

August 31, 2000

Dr. Dana A. Powers
Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: ACRS LETTER DATED JULY 20, 2000, "PROPOSED FINAL ASME
STANDARD FOR PROBABILISTIC RISK ASSESSMENT FOR NUCLEAR
POWER PLANT OPERATIONS"

Dear Dr. Powers:

Your July 20, 2000, letter to me discussed the Committee's review of the subject draft standard. It provided five conclusions and recommendations which were principally focused at the writers of the standard, the American Society of Mechanical Engineers (ASME). However, some of your conclusions and recommendations are also relevant to NRC staff work, and are further discussed below.

As you are aware, the staff has also provided comments to the ASME on the draft standard. As noted in the transmittal letter (Reference), the staff concluded that the draft standard:

- is not a standard that addresses PRA quality,
- is difficult to use in determining where there are weaknesses and strengths in the PRA results and therefore will have limited use in the decision-making process,
- will only provide limited assistance to the staff in performing a more focused review of licensee PRA submittals, and
- will provide minimal assistance in making more efficient use of NRC resources.

Given these conclusions, we have the following observations with respect to your conclusions and recommendations (C&R).

ACRS C&R 1:

The proposed Standard is not a traditional "design-to" engineering standard or a procedures guide. Consequently, any argument that a PRA should be accepted by the staff simply because it meets the Standard would not be valid.

Staff Response: We agree.

ACRS C&R 2: The Standard should be useful because it provides a framework for the systematic assessment of PRA elements. This will aid staff reviews by identifying weak elements in a PRA. Because the Standard can accommodate a wide range of PRA quality, however, the staff will still need to make a case-by-case assessment of the adequacy of the PRA.

Staff Response: As noted above, and discussed in the reference letter, we have concluded that the draft standard is difficult to use in determining where there are weaknesses and strengths in PRA results. We agree that, with the present version of the standard, the staff will continue to need to make case-by-case assessments.

ACRS C&R 3: The three categories of PRA requirements proposed in the Standard deal reasonably with the wide range of risk-informed decisions. The differences among the categories should be delineated more clearly, especially the treatment of uncertainties.

Staff Response: We agree in general. However, as currently distinguished, we believe that the three-graded approach does not serve its intended purpose. The boundaries are too ill-defined. We believe that the standard needs to clearly define the categories such that each category defines a technically acceptable PRA, and such that any requirements for a given application need to be contained within one category.

ACRS C&R 4: The discussion of the categories of requirements needed for particular regulatory applications that is given in Section 1.5, "Application Categories," can be misleading and should be deleted.

Staff Response: We agree that the discussion in Section 1.5 can be misleading; however, we disagree that it should be deleted. The differences in the categories needs to be clearly defined (see staff response above to C&R 3).

ACRS C&R 5: More guidance and examples should be given on the circumstances under which supplementary analyses would be needed and how they would enhance the scope and level of detail in a PRA.

Staff Response: We agree.

We are currently evaluating how best to proceed in addressing our concerns with the subject ASME draft standard. We will keep you informed of our plans in this regard.

Sincerely,

/RA/

William D. Travers
Executive Director
for Operations

Reference: Letter from T.L. King, NRC, to G. Eisenberg, ASME, August 14, 2000.

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
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