

August 14, 2000

Mr. Gerry Eisenberg
The American Society of Mechanical Engineers
3 Park Avenue
New York, NY 10016-5990

Dear Mr. Eisenberg:

On June 14, 2000, ASME's draft, Revision 12 entitled "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications" was distributed for public review and comment. We are pleased to have an opportunity to comment on Revision 12.

The issue of PRA quality is a central issue to risk-informed regulation, and one that the Commission has continually raised to the staff. We had anticipated that the ASME standard would be one important element in addressing this issue. Consequently, we had indicated in our comments on Revision 10 (and in Mr. Ashok Thadani's correspondence to Ms. Ling in February of 1998) that *"development of a PRA standard can provide a level of confidence to the NRC staff regarding the technical quality of a PRA utilized by a licensee to support a risk informed initiative. Such a standard can, therefore, result in a more focused technical review of the PRA by the NRC staff and thereby make more efficient use of both NRC and industry resources, while still ensuring the safety of the decisions being supported by PRA insights."* (Reference)

The staff (the Office of Nuclear Regulatory Research and the Office of Nuclear Reactor Regulation) carefully reviewed the subject standard. Using criteria developed by the staff (and considering the staff's comments provided on Revision 10), we have concluded that Revision 12:

- 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.

Comments providing the basis for each of these conclusions are provided in the Attachment.

In addition, attached with ASME's draft of the subject standard was a "white paper and guidance to reviewers of the draft ASME standard..." It indicated that the changes in Revision 12 (from Revision 10) were based on public comments and that the majority of the comments (including those of NRC) requested a need (1) for additional flexibility, (2) to distinguish among grades of applications, (3) to recognize the standard will be for determining how existing PRAs can be used to support risk-informed applications, and (4) to align with the industry peer review program. We did not provide such comments in our review of Revision 10; we continue to believe that they are not appropriate. Specific responses to each of these four items are provided in the Attachment.

In addressing the comments in the Attachment, we believe the following are needed to make a future version of the standard acceptable:

- Chapter 1 needs to include a discussion of what it takes to meet the standard.
- In Chapter 2, the definitions need to be accurate, well written and stand the test of time.
- The requirements in Chapters 3 and 5 need further explanation to ensure they are properly focused.
- The focus in Chapter 4 should be on defining technical quality. We recommend concentrating on defining a Category II that is technically acceptable, then updating the standard at a future time with additional categories as needed.
- The focus of Chapter 6 is incorrect; it should be on performing a peer review that establishes the reasonableness of the PRA results.

As you are aware, we have already contributed considerable staff and contractor resources to this standards effort. We believe that if this effort were to result in a good standard on PRA quality, it will have been well worth the effort.

Mr. Gerry Eisenberg

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It is our intent to continue support to ASME in the finalization of this standard. However, the extent of our future support is dependent upon the direction taken by the ASME to develop a standard that is clear, technically sound and useful in decision-making and improving efficiency and effectiveness. If you have any questions, please contact Mary Drouin at (301) 415-6675.

Sincerely,

/RA/

Thomas L. King, Director
Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research

Attachment: As stated

Reference: Letter from A. Thadani to J. Moon of ASME, "Staff Comments on ASME Draft Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications," May 3, 1999.

cc: J. Ferguson, Chairman of ASME Board of Nuclear Codes and Standards
S. Bernson, Chairman of ASME Committee on Nuclear Risk Management
R. Simard, NEI, Chairman of ASME Project Team
P. Amico, Chairman, ANS Risk Informed Standards Committee
D. Helwig, Chairman, NEI Risk Informed Regulation Working Group

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NAME	Drouin	Cunningham	King	Holahan	Federline	Thadani
DATE	8/14/00	8/14/00	8/14/00	8/14/00	/ /00	/ /00

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NRC/RES/PRAB

Concurrence Package

DOCUMENT NAME: Letter to ASME on NRC Review of Rev. 12

ORIGINATOR NAME: Mary Drouin

SECRETARY NAME: Patty Nielsen

SUBJECT: Letter to ASME on NRC Review of Rev. 12

DATE: 8/14/00

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DUE DATE: **RES:**
EDO:

(10) Drouin	/	/00
(11) Cunningham	/	/00
(12) King	/	/00
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(14) Federline	/	/00
(15) Thadani	/	/00
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