

June 4, 2003

Dr. Mario V. Bonaca, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C., 20555

SUBJECT: PROPOSED RESOLUTION OF PUBLIC COMMENTS ON DRAFT REGULATORY GUIDE (DG)-1122, "AN APPROACH FOR DETERMINING THE TECHNICAL ADEQUACY OF PROBABILISTIC RISK ASSESSMENT RESULTS FOR RISK-INFORMED ACTIVITIES"

Dear Dr. Bonaca:

On April 10, 2003, the NRC staff presented to the ACRS its proposed resolution of public comments on draft Regulatory Guide (DG)-1122, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities." In your letter dated April 21, 2003, several observations and recommendations are provided on the staff's resolution of the public comments. Overall, we agree with these observations and recommendations. The staff's response to the recommendations are provided below.

- (1) ACRS Recommendation: The draft final Regulatory Guide should include definitions of the terms "dominant," "important," "key," and "significant."

Staff Response: The staff has included definitions of the terms "dominant," "important," "key," and "significant" in the draft regulatory guide. The staff plans to test these definitions during the pilot application of the regulatory guide.

- (2) ACRS Recommendation: The peer review of the probabilistic risk assessments (PRAs) should include an assessment of the uncertainties and the validity of key assumptions.

Staff Response: The staff has included in the draft regulatory guide that an assessment of the uncertainties and the validity of key assumptions be performed as part of the peer review.

- (3) ACRS Recommendation: The draft final Regulatory Guide should include guidance on how to perform sensitivity and uncertainty analyses.

Staff Response: The ASME Standard provides requirements on the performance of sensitivity and uncertainty analysis. The staff is further examining these requirements to identify where additional guidance may be needed.

- (4) ACRS Recommendation: To ensure consistency, the draft final Regulatory Guide should prescribe a minimum list of topics to be included in the peer review.

Staff Response: The staff has stated in the draft regulatory guide that the list of topics provided in the peer review section of the ASME standard be included as a minimum list for the peer review.

- (5) ACRS Recommendation: The staff needs to clarify how the capability categories are consistent with the provision in the Regulatory Guide that the event probabilities reflect the actual operating history and experience of the plant as well as applicable generic experience.

Staff Response: The staff will add further discussion to clarify this issue. The staff agrees that each capability category has to reflect the actual operating history and experience of the plant; however, there may be differences in the level of detail for each capability category.

- (6) ACRS Recommendation: The staff should provide guidance on acceptable qualitative characterization of risk contributions not calculated in limited-scope PRAs. Further in the letter, the ACRS notes that *“DG-1122 states that, for many applications that involve total plant risk, the risk characterization should account for all plant operating states and initiating events either quantitatively or qualitatively. More guidance is needed on this subject.”*

Staff Response: In DG-1122, the intent of a “qualitative assessment” was meant to include methods other than a PRA, such as a bounding analysis as the staff discussed at the April 10, 2003, ACRS meeting. The ACRS appropriately identified that a bounding analysis is not “qualitative” but “quantitative.” The staff will clarify this statement and provide additional guidance.

The staff continues to obtain public input on the draft regulatory guide. The staff plans to meet with the ACRS when the regulatory guide, for trial use, is ready for issuance.

Sincerely,

/RA by William F. Kane Acting For/

William D. Travers
Executive Director
for Operations

cc: Chairman Diaz
Commissioner Dicus
Commissioner McGaffigan
Commissioner Merrifield
SECY

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/RA by William F. Kane Acting For/
 William D. Travers
 Executive Director
 for Operations

cc: Chairman Diaz
 Commissioner Dicus
 Commissioner McGaffigan
 Commissioner Merrifield
 SECY

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May 8, 2003 (4:21PM)

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* See Previous Concurrences

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