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NUCLEAR REGULATORY COMMISSION  
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Dade W. Moeller, Chairman  
Advisory Committee on Nuclear Waste  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Dr. Moeller:

Thank you for your letter dated August 3, 1990, providing the Advisory Committee on Nuclear Waste's (ACNW's) comments on the draft Commission paper titled "Staff's Approach for Dealing with Uncertainties in Implementing the EPA HLW Standards." Your comments, as well as the July 1990, recommendations of the National Research Council's Board on Radioactive Waste Management (BRWM), suggest that significant revisions to the probabilistic format of the Environmental Protection Agency's (EPA's) standards might be appropriate. Accordingly, we plan a substantial expansion of the draft Commission paper.

As your comments recognize, uncertainties are inherent in repository performance assessments. In the draft Commission paper we described these as: (1) data uncertainty - uncertainty in our knowledge of the "as built" system; (2) future states uncertainty - our inability to accurately predict the future environment of the repository system, and (3) model uncertainty - our imperfect conceptual and mathematical descriptions of repository system performance. The revised paper will provide a discussion of methods for dealing with these uncertainties regardless of the form that the EPA standards might ultimately take. The paper will then go on to evaluate several possible forms for EPA's standards, including probabilistic, deterministic, dose-based, risk-based, and total release limits. The paper will discuss the relative advantages and disadvantages of each of these possible forms in terms of uncertainties in implementation. We anticipate that this review will provide the information needed by the Nuclear Regulatory Commission (NRC) staff and the Commission in the ongoing assessment of issues associated with implementation of EPA's standards.

As you are aware, the BRWM plans a symposium on radioactive waste repository licensing on September 17-18, 1990. The staff plans to attend this symposium and to use information acquired there, in addition to your comments, in

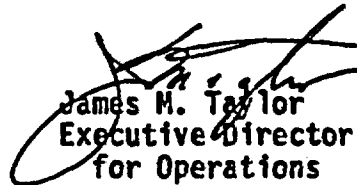
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Dr. Dade W. Moeller

- 2 -

revising the draft Commission paper. After the revision has been completed (probably in October or November) we will forward the draft document to the ACNW for your review and comment.

Sincerely,

  
James M. Taylor  
Executive Director  
for Operations

cc: Chairman Carr  
Commissioner Rogers  
Commissioner Curtiss  
Commissioner Remick  
SECY