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Mr. Thomas H. Isaacs
Associate Director for External Relations and Policy
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
Washington, D.C. 20585

Dear Mr. Isaacs:

SUBJECT: COMMENTS ON RWMC COLLECTIVE OPINION ON SAFETY ASSESSMENT

On behalf of the staff of the U.S. Nuclear Regulatory Commission (NRC), I am providing the following comment on the 27th March, 1990 draft RWMC Collective Opinion on Safety Assessment

Our review of an earlier draft of the Collective Opinion identified an overly optimistic tone that we thought to be technically unsupportable. We noted that further model development is needed in some key areas, and that validation of models could not be achieved to the extent implied by the earlier draft. Our comments went on to state:

> However, the NRC staff does believe that existing safety assessment methodologies can be used to provide a basis for society to decide if proposed radioactive waste disposal systems are acceptable, and that they can provide a sufficient level of safety for present and future generations, so long as the uncertainties noted above are considered in these decisions.

By this statement I meant that, in some cases, the uncertainties associated with use of current safety assessment methodologies for specific disposal facilities might be quite large, and that many highly conservative approximations might be needed. For example, if a proposed disposal system were located in a geologically complex setting, relied strongly on novel engineered barriers, or released wastes in amounts approaching regulatory limits, current safety assessment methodologies might be unable to convincingly demonstrate compliance with safety standards. In such cases, additional refinement of current safety assessment methodologies would be needed before the acceptability of a proposed repository could be demonstrated. Accordingly, I recommend that the Collective Opinion be revised to read:

> The RWMC considers that:
>
> (1) safety assessment methodologies exist today to illustrate the long-term radiological impacts of conceptual radioactive waste disposal systems on man and his environment, allowing societal decisions on the acceptability of the technology of deep geologic disposal;
>
> (2) for a relatively simple disposal system that provides good waste

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isolation, current safety assessment methodologies can provide a basis for society to decide if a specific proposed disposal system is acceptable;

(3) portions of current safety assessment methodologies will also be applicable for evaluations of more complex disposal systems; and

(4) no technical obstacles have been identified that would preclude development of site-specific methodologies appropriate for safety assessments of proposed radioactive waste disposal systems.

I hope this suggestion will be helpful in developing an informative and convincing collective opinion on the important subject of safety assessments.

Sincerely,

R E Browning

for Robert M. Bernero, Director
Office of Nuclear Material Safety
and Safeguards

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