



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, D.C. 20555

July 7, 1992

Mr. B. Joe Youngblood
Director
Division of High Level Waste Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Youngblood:

SUBJECT: NRC STAFF REVIEW OF DOE EARLY SITE SUITABILITY EVALUATION

In response to your request, and as a follow-up to the ACNW Working Group meeting with you and your staff on June 17, 1992, we offer the following comments on the Early Site Suitability Evaluation (ESSE) for the proposed Yucca Mountain high-level waste repository site. Our comments relate both to the ESSE, as prepared by Science Applications International Corporation (SAIC), a contractor to the U.S. Department of Energy (DOE), and to the draft review prepared by your staff.

Purpose of the Early Site Suitability Evaluation:

One of the weaknesses of the ESSE is that neither the report, nor the DOE staff, has clearly enunciated the goals of this effort or how the report is to be used. We believe that DOE should emphasize that this is only one step in an iterative process and that too few data exist to permit them to reach definitive conclusions at this time. Although the ESSE may help identify priorities and data needs, it is but one of several inputs into this process. Above all, the ESSE should not be used to justify the termination of studies designed to provide additional data in support of suitability findings currently ranked in the high-level category.

Specific Comments:

Many comments provided by ACNW members and its consultants are contained in the transcript of our Working Group meeting. Of these, we want to highlight the following:

1. One of the objectives of the limited review conducted by the NRC staff is to evaluate the consistency and completeness of the data used in the ESSE. The draft NRC report should comment on this objective.

2. The NRC staff evaluation of the Peer Review of the ESSE, that was conducted under the auspices of the DOE contractor, was limited. Our opinion is that there were deficiencies in the DOE Peer Review process. These need to be addressed by DOE.
3. The DOE contractor did not provide an adequate description in the ESSE of the role and application of expert judgment. This inadequacy should be reflected in the NRC review.
4. It should not be assumed that the comments provided as a result of the NRC staff review cover each and every topic within the ESSE. In certain cases, the NRC staff comments only serve as examples of problem areas. Although the NRC staff has made every effort to cite the more important questions and inadequacies that have been uncovered as a result of your review, you should alert the DOE staff that the lack of comment on a specific subject area does not necessarily mean that your staff agrees with the DOE evaluations and conclusions.
5. Review of the ESSE also confirmed the need for DOE to expedite its program to develop and apply models for assessing the performance of the proposed Yucca Mountain repository. Such assessments represent a major source of input into the establishment of data needs and research priorities.
6. There is clearly a need to actively involve affected states, affected Indian tribes, and Federal agencies in the evaluation of the suitability of the proposed site.

The NRC draft report reflects considerable thought and care and is professionally done. We hope that the Working Group meeting, the transcript of the meeting, and the comments in this letter will be helpful to you and your staff.

Sincerely,



Dade W. Moeller
Chairman

References:

1. Science Applications International Corporation, SAIC-91/8000, Report of Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada, January 1992
2. Science Applications International Corporation, SAIC-91/8001, Report of the Peer Review Panel on the Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada, January 1992

3. Memorandum dated June 5, 1992, from B. J. Youngblood, Office of Nuclear Material Safety and Safeguards, NRC, to Raymond F. Fraley, ACNW, Subject: Transmittal of Review of U.S. Department of Energy "Report of Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada"
4. U.S. Nuclear Regulatory Commission, NUREG-1297, "Peer Review for High-Level Nuclear Waste Repositories, Generic Technical Position," February 1988