



Department of Energy  
Washington, DC 20585

JUN 28 1989

Mr. Hugh L. Thompson  
Deputy Executive Director for  
Nuclear Materials Safety,  
Safeguards and Operations Support  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Thompson:

Recent presentations by the Nuclear Regulatory Commission (NRC) staff have raised concerns for the Department of Energy (DOE) related to resolution of issues that may affect the progress of the geologic repository program. Based on the nature of the NRC presentations of preliminary NRC comments on the Site Characterization Plan (SCP) for Yucca Mountain, it appears that DOE has not fully communicated its position, or that NRC has not fully understood these positions regarding the resolution of continuing NRC concerns. In this letter I would like to address our concerns on this matter. In particular, I would like to relate our views on the status of DOE documents submitted for review, our commitment to a fully-qualified quality assurance (QA) program, adequacy of the exploratory shaft design, integration of performance assessment with site characterization testing, status of a DOE assessment of a geophysical anomaly at the shaft site, and the need to move forward on the program.

First, it appears to DOE that the NRC staff views the SCP and other DOE repository program submittals to the NRC essentially as licensing documents, even though the license application has not been submitted. This is understandable, considering the potential impact of such documents on the licensing process. Furthermore, past NRC comments have resulted in beneficial changes to the program. Nevertheless, it is our belief that the degree of treatment of prelicensing documents as licensing documents at this time is resulting in unnecessary and unproductive iterations in an attempt to resolve concerns for which site characterization data, or additional design information is necessary. As a result, we are frequently devoting time to repeatedly addressing matters that could be more productively evaluated by proceeding with the program and jointly monitoring treatment of the issues.

Also, NRC review of the consultative draft SCP resulted in an objection related to quality assurance. As a result, DOE committed, both at the staff level and to the Commissioners at a meeting in December 1988, to have in place a fully-qualified quality assurance (QA) program prior to the start of any new site characterization activities. We have made considerable progress in developing our QA program in the past year and have actively included NRC staff in our activities, ranging from QA document

9401060154 731116  
PDR COMMS NRCC  
CORRESPONDENCE PDR

reviews to audits and surveillances. QA review meetings are held regularly, involving DOE, NRC, the State, local governments in Nevada, and the public. In our view, this is a matter that has been adequately addressed and is being appropriately monitored by the NRC staff to ensure that DOE's commitment is fulfilled. Further, expressions of concern in this area will not result in even greater effort - we are already directing as many resources to this effort as can be focused effectively on it.

In another comment on the consultative draft SCP, the NRC staff expressed concern about the adequacy of the exploratory shaft design and requested that DOE evaluate planned site characterization testing with respect to potential impacts on the waste isolation characteristics of the site. Section 8.4 of the SCP was extensively rewritten to present this evaluation, and DOE conducted an analysis of the acceptability of the design in consultation with NRC staff. The exploratory shaft design has been the topic of numerous DOE/NRC interactions since July 1988, and we expect many additional interactions as we proceed to finalize the design. Again, we believe there is ample opportunity for our on-going activities to be evaluated to ensure that the NRC staff's comments are adequately addressed as we proceed with the final design.

NRC has also indicated that it is concerned with the extent of integration of performance assessment with site characterization testing. As noted in the SCP, DOE plans to use performance assessment as an integral part of site characterization to continually evaluate the data obtained and the need for further data. Furthermore, as we have previously stated, the SCP is a plan for testing, and performance assessment is addressed only to the degree necessary to allow development of a comprehensive test program. It is anticipated that DOE's performance assessment plan and strategy document to support licensing assertions will be provided to the NRC by the end of this year.

DOE also recognizes that the geophysical anomaly, potentially related to faulting at the exploratory shaft facility site, needs to be evaluated. Although DOE considers, based on the most credible available evidence, that there is no fault present, we are presently conducting a Technical Assessment Review of the geological and geophysical evidence pertaining to the structural geology of the site, and will continue to evaluate this, as well as any other potential anomalies, throughout site characterization. The results of our findings will be made available to the NRC and State.

The items discussed above serve as examples of areas where DOE's perspective appears to be at variance with that of the NRC staff. Nevertheless, we continue to be appreciative of the support and positive working arrangement with the staff. However, as noted above, the DOE program is in an early stage of data development. We clearly understand that the activity must be done right from a regulatory (safety) and environmental standpoint. Your continued

guidance and consultation is needed to help us ensure we are on the proper track, but we also need your assistance in ensuring that the staff's activities are conducted in a manner that will allow DOE to move forward with collection of site data and design of facilities, all under appropriate QA control and active NRC staff monitoring. We would appreciate your consideration of the points we have raised in ensuring that progress is possible, and can continue.

Please call me or Ralph Stein if you have any questions on this matter.

Sincerely,



Samuel Rousso, Acting Director  
Office of Civilian Radioactive  
Waste Management

cc: Robert Bernero, NRC  
Robert Loux, State of Nevada  
Stephen Bradhurst, Nye County, NV  
Dennis Bechtel, Clark County, NV  
Mike Baughman, Lincoln County, NV