

MAY 31 1991

UNSAT ZONE INFILTRATION SP

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Mr. Dwight E. Shelor, Acting Associate Director
for Systems and Compliance
Office of Civilian Radioactive Waste Management
U. S. Department of Energy, RW 30
Washington, D.C. 20585

Dear Mr. Shelor:

SUBJECT: PHASE I REVIEW OF U.S. DEPARTMENT OF ENERGY (DOE) STUDY PLAN FOR
CHARACTERIZATION OF THE UNSATURATED-ZONE INFILTRATION

On March 1, 1991, DOE transmitted the study plan entitled "Characterization of the Unsaturated-Zone Infiltration" (Study Plan for Study 8.3.1.17.4.1) to the U.S. Nuclear Regulatory Commission (NRC) for review and comment. NRC has completed its Phase I Review of this document using the Review Plan for NRC Staff Review of DOE Study Plans, Revision 1 (December 6, 1990).

The material submitted in the study plan was considered to be consistent, to the extent possible at this time, with the agreement on content resulting from the NRC-DOE agreements made at the May 7-8, 1986 meeting on Level of Detail for Site Characterization Plans and Study Plans. The NRC staff recognizes that some of the information required in the agreement, especially many of the procedures for field tests and methods for analyses, cannot be provided until the prototype testing described in the study plan is completed. The staff did not consider that the absence of such information compromised its ability to conduct its Phase I Review of the material provided. However, the NRC staff requests that the procedures, methods, and other relevant details be provided to NRC for its review as soon as they are available.

Among the references listed for this study plan are several which have not been provided to NRC and are not readily available in the public domain. We therefore request that DOE provide to us the documents listed in the Enclosure.

A major purpose of the Phase I Review is to identify concerns with studies, tests, or analyses that if started could cause significant and irreparable adverse effects on the site, the site characterization program, or the eventual usability of the data for licensing. Such concerns would constitute objections, as that term has been used in earlier NRC staff reviews of DOE's documents related to site characterization (Consultation Draft Site Characterization Plan and the Site Characterization Plan for the Yucca Mountain site). The Phase I Review of this study plan identified no objections with any of the activities proposed.

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After completion of the Phase I Review, selected study plans are to receive a second level of review, called a Detailed Technical Review, based on the relationship of a given study plan to key site-specific issues or NRC open items, or its reliance on unique, state-of-the-art test or analysis methods. We have decided not to proceed with a Detailed Technical Review of this study plan at this time, in part because the technical details required for such a review will not be available until the prototype studies are completed.

If you have any questions concerning this letter, please contact King Stablein (FTS/[301]-492-0446) of my staff.

Sincerely,
for (Original Signed by *Joseph J. Linehan*)
 John J. Linehan, Acting Director
 Repository Licensing and Quality
 Assurance Project Directorate
 Division of High-Level Waste Management
 Office of Nuclear Material Safety
 and Safeguards

Enclosure: As Stated

- cc: R. Loux, State of Nevada
- C. Gertz, DOE/NV
- S. Bradhurst, Nye County, NV
- M. Baughman, Lincoln County, NV
- D. Bechtel, Clark County, NV
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- P. Niedzielski-Eichner, Nye County, NV
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*See previous concurrence

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Date:05/29/91	:05/29/91	:05/29/91	:05/31/91	:05/31/91	:

Enclosure

References for Study Plan 8.3.1.17.4.1 Requested by NRC

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