

OCT 04 1991

SP LETTER--GEODETIC LEVELING

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Mr. Dwight E. Shelor, 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  
GEODETIC LEVELING

On February 14, 1991, DOE transmitted the study plan entitled "Geodetic Leveling" (Study Plan for Study 8.3.1.17.4.10) to the U.S. Nuclear Regulatory Commission (NRC) for review and comment. The 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 determined to be for the most part substantively consistent 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. However, the study plan did not specify the tolerance, accuracy, and precision of the tests in the different activities, nor were performance goals or confidence levels designated for the different activities. These items are of particular importance because the ability to detect vertical and lateral changes of small magnitude is essential for the purposes of this study. In addition, the study plan contains the statement that compilation and interpretation of existing data is 50 percent completed, but no reference was cited for that compilation and interpretation. The missing information should be provided to NRC as soon as possible either in a revised study plan or in a letter.

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 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.

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

Sincerely,

*Original signed by Joseph J. Holonich for*  
 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

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- S. Bradhurst, Nye County, NV
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