## MAY 0 6 1992

Mr. John P. Roberts, Acting Director for Systems and Compliance
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avneue, SW
Washington, DC 20585

Dear Mr. Roberts:

SUBJECT: PHASE I REVIEW OF U.S. DEPARTMENT OF ENERGY (DOE) STUDY PLAN, REGIONAL HYDROLOGIC SYSTEM SYNTHESIS AND MODELING

On January 15, 1992, DOE transmitted the study plan, "Regional Hydrologic System Synthesis and Modeling" (Study Plan 8.3.1.2.1.4), to the U.S. Nuclear Regulatory Commission 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 (December 6, 1990).

The material submitted in the study plan was considered to be consistent, to the extent possible at this time, with the NRC-DOE agreement on content of study plans made at the May 7-8, 1986, meeting on Level of Detail for Site Characterization Plans and Study Plans.

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.) It does not appear that the conduct of the activities described in this study plan will have adverse impacts on repository performance and the Phase I Review of this study plan identified no objections with any of the activities proposed.

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. During the Phase I Review, the NRC staff observed that several SCA open items-namely SCA Comments 6, 9, 10 and 95--are related to this study plan, and that the aspects of the SCP that generated those concerns in the SCA are reiterated in this study plan. The NRC staff wishes to call DOE's attention to these open items which have not been addressed in this study plan. We have decided to proceed with a Detailed Technical Review because of the relevance of this study plan to unresolved SCA open items and the relationship of this study plan to key site issues such as regional groundwater flow and the overall performance of the site.

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9205080028 920506 PDR WASTE PDR WM-11 PDR Mr. John P. Roberts

If you have any questions concerning this letter, please contact Charlotte Abrams, of my staff, at (301) 504-3403/FTS 964-3403.

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Sincerely,

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Joseph J. Holonich, 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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