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MEMORANDUM FOR: Joseph Holonich, Director
Repository Licensing and Quality Assurance
Project Directorate
Division of High-Level Waste Management

FROM: Margaret Federline, Chief
Hydrology and Systems Performance Branch
Division of High-Level Waste Management

SUBJECT: PHASE I REVIEW: DOE STUDY PLAN FOR CLIMATIC
INTERPRETATIONS OF TERRESTRIAL PALEOECOLOGY
(STUDY PLAN 8.3.1.5.1.3, Revision 0)
[PPSAS 411421, TACS L60246]

As requested, we have completed the Phase I review of the subject study plan (see enclosure). This review was conducted using the Review Plan for NRC Staff Review of DOE Study Plans, Revision 1 (December 6, 1990). Input was obtained from the Quality Assurance Section and the review coordinated with the Geology-Geophysics Section, Material Section, and the Geotechnical Section. As discussed in the review report, we have identified no objection-level concerns. The study plan is a candidate for detailed technical review; however, the technical staff does not find a compelling need for such a review at this time.

The study plan has three activities: (1) Analysis of pack rat middens; (2) Analysis of pollen samples; and (3) Determination of vegetation-climate relationships. Information from these activities of the study will be used to relate past regional climatic changes with global climate variations, to validate numerical models of climate, to establish the relationships between past climatic changes and hydrologic responses, and to predict future climatic fluctuations. The information developed from this study will contribute to the prediction of repository performance with respect to the EPA environmental standards under 40 CFR 191.

The field sampling and data collection of this study plan will not interfere with other Yucca Mountain site characterization activities or affect the performance of the repository. No objections have been identified.

The review was conducted by Donald L. Chery, Jr. of the Hydrologic Transport Section, who can be reached at 504-3461.

Margaret Federline, Chief
Hydrology and Systems Performance Branch
Division of High-Level Waste Management

Enclosure:
As stated

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