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Department of Energy

Washington, DC 20585

February 23, 1994

Mr. Joseph J. Holonich, Director Repository Licensing & Quality Assurance Project Directorate Division of High-Level Waste Management Office of Nuclear Material Safety and Safeguards U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dear Mr. Holonich:

At the November 18, 1993, Interactions Planning Meeting, the U.S. Department of Energy (DOE) committed to supply the U.S. Nuclear Regulatory Commission (NRC) with the scientific planning documents for the Large Block Experiment (LBE) at Fran Ridge, Nevada, prior to the May 3-5 site visit, for their information.

The LBE is an activity designed to improve our understanding of the effects on the near-field environment that result from an emplaced heat source. The experiment will gather data needed to evaluate the current design of the Exploratory Studies Facility (ESF) relative to the testing objectives of the site characterization and design programs. It is a design activity that is coupled to site characterization through Section 8.3.4.2.4.4 of the Site Characterization Plan.

The LBE was planned to be fielded underground in the ESF at the main test level. This plan has not changed; however, a surfacebased LBE was factored into site characterization planning in order to test hardware, procedures, and conceptual viability of the experiment. This called for accelerated development of the Engineered Barrier System Field Tests (8.3.4.2.4.4) study plan. The LBE is being conducted under the applicable range of quality assurance controls for designing and constructing a test facility (Yucca Mountain Site Characterization Project Office [YMPO] Administrative Procedure [AP] 5.210, Field Work Activation) and fielding a test (AP 5.320, Test Planning Package Development and Implementation).

Enclosed (enclosures 1-4) are uncontrolled copies of the requested planning documents. These include: (1) Lawrence Livermore National Laboratory's (LLNL) Scientific Investigation Plan SIP-NF-02, Revision 0; (2) the Civilian Radioactive Waste

9403080185 940223 PDR WASTE PDR WM-11 PDR Management System Management and Operating Contractor (CRWMS M&O) Test Planning Package (TPP) T-92-07 (Fran Ridge Pit Mapping); (3) YMPO Job Package 93-10 (Engineered Barrier Large Block Experiment, Site Preparation Phase I); and (4) the Waste Isolation Evaluation and the Test Interference Evaluation that will become part of YMPO TPP T-93-3 for conduct of the experiment. TPP T-93-3 will be available when the study plan is approved by YMPO. Enclosure 5 is a graphic that explains how these planning documents relate to Study Plan 8.3.4.2.4.4, which is currently in YMPO comment resolution.

Study Plan 8.3.4.2.4.4 references LLNL SIP-NF-02 as the controlling technical planning document for the LBE. The study plan will be approved by YMPO and sent to the NRC prior to fielding the test in the summer of 1994.

If you have any questions, contact Chris Einberg of my staff at (202) 586-8869.

Sincerely,

Dwight E. Shelor

Dwight/E. Shelor Associate Director for Systems and Compliance Office of Civilian Radioactive Waste Management

Enclosures:

- 1. LLNL SIP-NF-92
- 2. CEWMS MAO TPP T-92-07
- 3. YMPO JP 93-10
- 4. Waste Isolation Evaluation and Test Interference Evaluation for CRWMS Ms0 TPP-93-03
- 5. Test Logic Graphic

cc: w/enclosures

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