



Department of Energy
Washington, DC 20585

JAN 21 1993

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:

The enclosure reflects the latest list of Yucca Mountain Site Characterization Project (YMP) products scheduled for delivery to the U.S. Nuclear Regulatory Commission (NRC) during fiscal year 1993. These documents include topical reports, performance assessment reports, study plans, and revisions to the annotated outline for a potential license application. The list reflects the current YMP baseline. Following are the U.S. Department of Energy (DOE) priorities:

First Priority:

Two of the Exploratory Studies Facility (ESF)-related study plans, specifically Study Plans 8.3.1.2.2.4, R1, and 8.3.1.4.2.2, R2. As referenced in our letter dated January 19, 1993, the review of those Study Plans is critical to our ability to proceed forward with site characterization activities.

Second Priority:

The topical report on extreme erosion, the annotated outline and the three remaining ESF-related study plans.

Third Priority:

Following five additional study plans currently at NRC:

1. Study Plan 8.3.1.2.2.5, "Diffusion Tests in the Exploratory Studies Facility"
2. Study Plan 3.3.1.2.3.2, "Characterization of the Yucca Mountain Saturated-Zone Hydrochemistry"
3. Study Plan 8.3.1.3.7.1, "Retardation Sensitivity Analysis"
4. Study Plan 3.3.1.9.2.1, "Natural Resource Assessment of Yucca Mountain, Nye County, NV"

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5. Study Plan 8.3.1.17.4.5, "Detachment Faults at or Proximal to Yucca Mountain"

Fourth Priority:

Remainder of study plans, in the order submitted by DOE.

Last Priority:

Documents submitted for information only.

If you have any questions, please contact Mr. Chris Einberg of my office at 202-586-8869.

Sincerely,



John P. Roberts
Acting Associate Director for
Systems and Compliance
Office of Civilian Radioactive
Waste Management

Enclosures:
Schedule for the Submittal of
Documents to the NRC

cc: w\enclosure

C. Gertz, YMPO
R. Loux, State of Nevada
T. Hickey, Nevada Legislative Commission
M. Baughman, Lincoln County, NV
J. Bingham, Clark County, NV
B. Raper, Nye County, NV
P. Niedzielski-Eichner, Nye County, NV
G. Derby, Lander County, NV
P. Goicoechea, Eureka, NV
C. Schank, Churchill County, NV
F. Mariani, White Pine County, NV
V. Poe, Mineral County, NV
E. Wright, Lincoln County, NV
J. Pitts, Lincoln County, NV
R. Williams, Lander County, NV
J. Hayes, Esmeralda County, NV
B. Mettam, Inyo County, CA
C. Abrams, NRC
K. Hooks, NRC

SCHEDULE FOR THE SUBMITTAL OF DOCUMENTS TO THE NRC

TYPE OF DOCUMENT	EXPECTED DATE
ISSUE RESOLUTION DOCUMENTS	
<u>Topical Reports</u>	
Assessment of the Potentially Adverse Condition "Evidence of Extreme Erosion During the Quaternary Period" at Yucca Mountain	1st Quarter 1993
Seismic Hazards Methodology at Yucca Mountain	3rd Quarter 1993
<u>Technical Reports</u>	
Origin of Calcite Silica Deposits in Trench 14	1st Quarter 1993
Substantially Complete Containment - Response to SCA Comment 80	3rd Quarter 1993
Review of Staff Technical Positions on Seismic/ Tectonic Hazards	March 1993
Los Alamos Technical Report on Volcanism (draft for discussion at June technical exchange)	March 1993
Review of Proposed Revision to 10CFR100 Appendix A	April 1993
PROGRESS REPORTS	
Number 7	2nd Quarter FY 93
Number 8	4th Quarter FY 93
ANNOTATED OUTLINE FOR LICENSE APPLICATION	
Mined Geologic Disposal System	May 1993 November 1993
COMMENTS ON DG-3003	June 1993
PERFORMANCE ASSESSMENTS	
Ground Water Travel Time Sensitivity Study	1st Quarter 1993
Ground Water Travel Time Strategy (probable)	3rd Quarter 1993

STUDY PLANS

1st Quarter 1993, 1st Priority (ESF-Related):

- 8.3.1.2.2.2, R1 Water Movement Test
- 8.3.1.2.2.4, R1 Characterization of the Yucca Mountain Unsaturated Zone in the Exploratory Studies Facility
- 8.3.1.4.2.2, R2 Characterization of Structural Features in the Site Area
- 8.3.1.15.1.5, R1 Excavation Investigations
- 8.3.1.15.1.8 In-Situ Design Verification

1st Quarter 1993 and Priority:

- 8.3.1.2.2.7, R1 Hydrochemical Characterization of the Unsaturated Zone
- 8.3.1.2.2.8, R1 Fluid Flow in Unsaturated, Fractured Rock
- 8.3.1.2.3.3 Saturated Zone Hydrologic System Synthesis and Modeling
- 8.3.1.3.4.2 Biological Sorption and Transport
- 8.3.1.3.5.1/.2 Dissolved Species Concentration Limits and Colloid Behavior
- 8.3.1.3.6.2 Diffusion
- 8.3.1.4.3.1 Systematic Acquisition of Site-Specific Subsurface Information
- 8.3.1.5.2.1, R2 Characterization of the Quaternary Regional Hydrology
- 8.3.1.5.2.2 Characterization of Future Regional Hydrology Due to Climate Changes
- 8.3.1.8.2.1 Analysis of Waste Package Rupture Due to Tectonic Processes and Events
- 8.3.1.12.2.1, R1 Meteorological Data Collection at the Yucca Mountain Site

STUDY PLANS (continued)

1st Quarter 1993 and Priority:

- 8.3.1.15.1.1, R1 Laboratory Thermal Properties
- 8.3.1.15.1.2, R1 Laboratory Thermal Expansion Testing
- 8.3.1.17.3.5 Ground Motion at the Site from Controlled Seismic Events
- 8.3.1.17.4.3 Quaternary Faulting within 100 km of Yucca Mountain, Including the Walker Lane
- 8.3.1.17.4.4 Quaternary Faulting Proximal to the Site within NE-Trending Fault Zones
- 8.3.4.2.4.3 Geomechanical Attributes of the Waste Package Environment

2nd/3rd Quarters 1993:

- 8.3.1.2.2.9 Site Unsaturated Zone Modeling and Synthesis
- 8.3.1.3.1.1 Ground-water Chemistry Model
- 8.3.1.15.1.4 Laboratory Determination of the Mechanical Properties of Fractures
- 8.3.1.17.3.3.2 Ground Motion from Regional Earthquakes and UNE's
- 8.3.1.3.4.1-3 Batch Sorption Studies and Development of Sorption Models
- 8.3.1.5.1.6 Characterization of Future Regional Climates and Environments
- 8.3.1.3.6.1 Dynamic Transport Column Experiments
- 8.3.1.8.5.2 Characterization of Igneous Intrusive Features
- 8.3.1.8.1.2 Physical Processes of Magmatism and Effects on the Potential Repository
- 8.3.1.15.2.1 Characterization of Site Ambient Thermal Conditions