Department of Energy
Washington, DC 20585

AUG 17 1992

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

Reference: Letter, Holonich to Roberts, dated 5/26/92

Dear Mr. Holonich:

The letter referenced above requested information regarding the schedule for submittal by the U.S. Department of Energy (DOE) of site characterization-related documents to the U.S. Nuclear Regulatory Commission (NRC) for review. This letter is in response to that request.

The enclosed schedule reflects tentative dates for delivery of DOE documents to NRC for review; these documents include topical reports, performance assessment iterations, and revisions to the Annotated Outline for License Application. Iterations of site suitability are not currently planned in fiscal year 1993. In addition, this schedule shows tentative dates for the submission of study plans for NRC review. These schedules are based on current projections of levels of effort and may be significantly affected by changes in funding levels.

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

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Enclosure:
Proposed Tentative Schedule for
Submittal of Site Characterization
Related Documents

cc: w\enclosure
C. Gertz, YMPO
R. Loux, State of Nevada
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
M. Hayes, Esmeralda County, NV
B. Mettam, Inyo County, CA
C. Abrams, NRC

TENTATIVE SCHEDULE FOR THE SUBMITTAL OF DOCUMENTS TO THE NRC

TYPE OF DOCUMENT	POTENTIAL SUBMITTAL
ISSUE RESOLUTION DOCUMENTS	
Topical Reports	
Absence of Extreme Erosion	Early FY 93
Probability of Magmatic Disruption	Mid- to Late FY 93
Seismic Hazards Methodology at Yucca Mountain	Late FY 93
Annotated Outline on Groundwater Travel Time Topical Report	Late FY 93
Technical Reports	
Origin of Calcite Silica Deposits in Trench 14	Early FY 93
Substantially Complete Containment - Response to SCA Comment 80	Early FY 93
Review of Staff Technical Positions on Seismic/ Tectonic Hazards	TBD
Review of Proposed Revision to 10CFR100 Appendix A	TBD
PROGRESS REPORTS	Early FY 93 Late FY 93
ANNOTATED OUTLINE FOR LICENSE APPLICATION	
Mined Geologic Disposal System	Sept/October, 1992 April, 1993 Sept/October, 1993
Monitored Retrievable Storage Facility	March, 1993 September, 1993
COMMENTS ON DG-3003	Early FY 93

Enclosure

PERFORMANCE ASSESSMENTS

Total System Performance Assessment	Early FY 93
Ground Water Travel Time Sensitivity Study	Early FY 93
Ground Water Travel Time Strategy (probable)	Mid-FY 93

STUDY PLANS

Late FY 1992:

8.3.1.2.1.1, R1	Characterization of Unsaturated Zone Infiltration
8.3.1.2.2.8	Fluid Flow in Unsaturated, Fractured Rock
8.3.1.3.4.2	Biological Sorption and Transport
8.3.1.17.4.5	Detachment Faults at or Proximal to Yucca Mountain
8.3.4.2.4.3	Mechanical Attributes of the Waste Package Environment

Early FY 1993:

8.3.1.3.7.2	Retardation Sensitivity Analysis
8.3.1.4.3.1	Systematic Acquisition of Site-specific Subsurface Information
8.3.1.5.2.1, R1	Characterization of Quaternary Regional Hydrology
8.3.1.5.2.2	Characterization of Future Regional Hydrology Due to Climatic Changes
8.3.1.8.2.1	Analysis of Waste Package Rupture Due to Tectonic Processes and Events
8.3.1.17.3.5	Ground Motion at the Site from Control Seismic Events
8.3.4.2.4.3	Mechanical Attributes of the Waste Package Environment

Mid-FY 1993:

8.3.1.2.2.2, R1	Water Movement Test
8.3.1.2.2.9	Site Unsaturated Zone Modeling and Synthesis
8.3.1.3.1.1	Ground-water Chemistry Model
8.3.1.3.4.2	Biological Sorption and Transport
8.3.1.3.5.1-2	Dissolved Species Concentration Limits and Colloidal Behavior
8.3.1.3.6.2	Diffusion
8.3.1.12.2.1, R1	Meteorological Data Collection at the Yucca Mountain Site
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
8.3.1.17.4.3	Quaternary Faulting Within 100 km of Yucca Mountain

ESF Revisions (Mid-FY 1993):

8.3.1.2.2.4, R1	Characterization of the Yucca Mountain Unsaturated Zone Percolation Exploratory Shaft Facility Study (ESF)
8.3.1.4.2.2, R2	Characterization of Structural Features in the Site Area (ESF)
8.3.1.15.1.1, R1	Laboratory Thermal Properties
8.3.1.15.1.2, R1	Laboratory Thermal Expansion Testing
8.3.1.15.1.3, R1	Laboratory Determination of the Mechanical Properties of Intact Rock
8.3.1.15.1.5, R1	Excavation Investigations
8.3.1.15.2.1, R1	Characterization of the Site Ambient Stress Conditions

Late FY 1993:

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
8.3.1.9.2.1	Natural Resource Assessment of Yucca Mountain, Nye County
8.3.1.15.1.8	In Situ Design Verification
8.3.1.17.4.4	Quaternary Faulting Proximal to Site
8.3.1.17.4.12	Tectonic Models and Synthesis