



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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TO: Joseph Holonich, Acting Director, HLPD, M/S 4 H 3

FROM: Paul T. Prestholt and John W. Gilray  
Sr. On-Site Licensing Representatives

DATE: July 23, 1991

SUBJECT: YUCCA MOUNTAIN PROJECT WEEKLY HIGHLIGHTS

Please find enclosed the above-referenced report for the week of July 5, 1991.

There is nothing requiring specific management attention in the reports.

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cc w/encs.: King Stablein, M/S 4 H 3  
Harold R. Denton, M/S 17 F 2  
Dean Kunihiro, Region 5

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**Department of Energy**  
Yucca Mountain Site Characterization  
Project Office  
P. O. Box 98608  
Las Vegas, NV 89193-8608

WBS 1.2.9  
QA: N/A

**JUL 10 1991**

John W. Bartlett, Director, Civilian Radioactive Waste Management,  
HQ (RW-1) FORS

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING  
JULY 5, 1991

I. CRITICAL ITEM STATUS - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT  
(YMP)

A. Site Characterization Planning

Exploratory Studies Facility (ESF) Task Force Activities

Office of Civilian Radioactive Waste Management (OCRWM) Milestone  
(M/S) status: (See note)

The following milestones/activities have not been completed in  
accordance with their scheduled dates as outlined in the RW-1  
letter of February 12, 1991, to RW-20 and RW-30:

MILESTONE	SCHEDULED DATE	EXPECTED DATE
ROA: Prepare plan for resolution of the U.S. Nuclear Regulatory Commission (NRC) Site Characterization Analysis Design Control Objection.	3/15/91	TBD
H1: Issuance of a public document articulating the ESF Decision Process.	CANCELED BY OCRWM	
H2: Prepare transition plan from current document hierarchy to new document hierarchy (Management System Improvement Strategy [MSIS]).	3/15/91	TBD

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MILESTONE	SCHEDULED DATE	EXPECTED DATE
H4: Letter transmittal to the NRC informing them of implementation of the Design Control Process by OCRWM.	3/31/91	9/91

Note: At this time none of the above M/S appear to have a specific impact on OCRWM M/S H10, the initial phase of ESF portal construction.

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STATUS OF ESF GENERAL ARRANGEMENT DRAWINGS  
(Architect/Engineer Design Activities)

DELIVERABLE	NORTH AREA (81)	SOUTH AREA (86)*
Mock Up	COMPLETE	91
Computer-aided draft design (CADD)	COMPLETE	56
Check	COMPLETE	23
I-D Review	COMPLETE	-
Quality Assurance (QA) Sign Off	COMPLETE	-

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\*The number of deliverable drawings will increase from 86 to a possible 123. The Testing Plan detail requires additional drawings for better explanation.

Mock Up: Sketched to a completed, free-hand drawing, then delivered to CADD.

CADD: Computer-Aided Drawing and Design; produces finished drawing.

Interdisciplinary Review: In-house review to ensure all aspects of drawing are covered. Disciplines include Civil, Mechanical, Mining, Structural and Architectural, and Electrical Engineering.

Site Characterization Plan (SCP) Progress Report (PR)

An OCRWM review of PR 4 began on June 10, 1991. Comments will be received until July 12, 1991, whereupon OGD will incorporate comments and prepare a concurrence draft for OCRWM and U.S. Department of Energy/Headquarters (DOE/HQ) approval.

SCP Comments

A three day Integration Group Meeting will be held in Las Vegas, Nevada, on July 9-11, 1991, to continue review of draft responses for the State of Nevada's September 1989 SCP comment package.

SCP Study Plan Status

The initial draft of Study Plan 8.3.1.5.1.6 (Characterization of the Future Regional Climate and Environments) was submitted to the Yucca Mountain Site Characterization Project Office (YMPO) for review.

Comment verification was initiated on revised drafts of Study Plans 8.3.1.2.2.5 (Diffusion Tests in the ESF) and 8.3.1.3.7.1 (Retardation Sensitivity Analysis).

Study Plans 8.3.1.2.1.1 (Characterization of Meteorology for Regional Hydrology), 8.3.1.8.1.1 (Probability of Magmatic Disruption of the Repository, revision 1), and 8.3.1.15.1.3 (Laboratory Determination of the Mechanical Properties of Intact Rock) have been transmitted to the NRC by DOE/HQ.

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STUDY PLAN BREAKDOWN

In Screening Review.....	1
In Revision after Screening review.....	1
In YMPO and HQ Review.....	9
Awaiting Comment Resolution Meeting.....	12
Awaiting Author revision.....	7
In YMPO/HQ Verification Audit.....	7
Verification Complete-Awaiting HQ sign-off.....	0
Awaiting YMPO Approval.....	0
Approved and Awaiting transmittal to NRC.....	2
NRC Acceptance Review.....	19
NRC Acceptance.....	7
 Total.....	 65

Received Comments from the State of Nevada.....	5
Response Transmitted to the State of Nevada.....	2

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Received Comments from the NRC.....	7
Responses Transmitted to HQ.....	3
Responses Awaiting HQ Transmittal to NRC.....	1
Responses Transmitted to NRC.....	2

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### Early Site Suitability Evaluation (ESSE)

The general guideline evaluations were revised, reflecting the results of the integrated review and concurrence activity conducted last week by the ESSE Core Team. A subgroup of the core team edited the integrated report for consistency of style and technical matter. At the completion of editing, the report will be processed for review in accordance with Standard Practice Procedure 2.3, Review of T&MSS Technical Documents.

#### B. Environmental Programs

##### Environmental Field Programs

A meeting with the Nevada Division of Environmental Protection to discuss provisions of the air quality permit was held on July 2, 1991, in Carson City, Nevada.

Preactivity surveys were conducted, paving the way for volcanism research in Lathrop Wells, Nevada. Technical planning was initiated for resurvey work based on the fact that water is being acquired to fulfill air quality permit requirements.

#### C. Field Operations

Since last week's report, the Site Manager had to make an operational change in the storage of the water from Death Valley Junction, California. In lieu of the storage sump previously planned to be used near Well J-13, seven water storage tanks have been installed that will have a storage capability of 115,000 gallons of water. As of today, July 3, 1991, we have started trucking the water on site from Death Valley Junction, California and by close of business should have approximately 40,000 gallons of water stored.

In preparation of the start of surface-disturbing activities next week, the Site Manager has scheduled a preconstruction conference for Monday, July 8, 1991, at 9:30 a.m. in the Yucca Mountain Site Office conference room. Immediately upon the conclusion of the conference, the Site Manager will convene the Field Change Control Board. This will be the initial implementation of this board and its system. There are presently four field changes to evaluate and approve.

Job Packages 91-1 (Midway Valley) and 91-2 (Trench 14) have been officially authorized by the Site Manager for project execution in the field by the respective participants: Sandia National Laboratories (SNL), Raytheon Services Nevada (RSN), Reynolds Electrical & Engineering Co., Inc., and U.S. Geological Survey (USGS).

On July 10, 1991, the Project Manager and selected staff members will accompany the local media to Yucca Mountain to see the new work being performed in three areas: Midway Valley, Trench 14, and volcanism studies that will be accomplished by Los Alamos National Laboratory (LANL) in Crater Flats.

D. Project Planning and Control

YMP prepared two budget "What If" scenarios for DOE/HQ that proposed \$100M and an additional \$50M to the Office of Management and Budget Target Case.

E. Quality Assurance Implementation

No new items this week.

F. Major Oversight Group Meetings

No major meetings this week.

G. Public Outreach Activities

Office of Institutional and External Affairs (OIEA) staff continued drafting fact sheets for the Climax Mine Spent Fuel Test Exhibit at the Yucca Mountain Information Office, Las Vegas, Nevada.

Recorded tapes of the project-related series on the Cable News Network were aired last week.

OIEA staff assisted YMPO staff in drafting a response to the institutional-related recommendation by the Nuclear Waste Technical Review Board (NWTREB) in their Third Report to the U.S. Congress.

On July 1, 1991, a Yucca Mountain project overview was presented by Carl Gertz to the DOE Associate Director of Human Resource Management at the Information Office.

H. Systems Management and Integration

Management System Improvement Strategy

YMPO remains concerned that it has not received MSIS draft products in accordance with the schedule developed by the Office of Systems Compliance (OSC). Failure to receive the scheduled draft/approved documents by July 5, 1991, will result in the use of existing YMP Controlled Documents for the review of the revised Title I Summary Report and the Environmental Science Services Administration Board Review.

### Technical Data Management

Work continues on the Technical Data Base Handbook, Parameter Dictionary and PARATRAC Normalization efforts. Information will be presented at the next Technical Data Advisory Group Meeting.

### Geographic Information System (GIS)

Loading of the data base continues. A number of products have been requested by YMPO in support of ongoing activities.

### Geochemistry

Principal investigators from LANL, Lawrence Livermore National Laboratory (LLNL), and USGS gave presentations at the NWTRB joint Structural Geology & Geoen지니어ing and Geochemistry & Hydrogeology Panel Meeting June 25-27, 1991, in Denver, Colorado. The focus of the meeting was on surface-based field tests in the saturated and unsaturated zones, with an additional half-day session devoted to the rock mechanics program. Geochemistry studies that were presented included discussions of the isotopic composition of water in the unsaturated zone, geochemistry of water near the top of the saturated zone, reactive tracer testing of the C-Well sites, Cl-36 measurements of percolation, and the effects of repository development on geochemistry of the near-field environment.

### Performance Assessment

The reports "Assessment of the Hydrological Impact of Extending Exploratory Shafts into the Calico Hills Nonwelded Tuff Unit at Yucca Mountain, Nevada," PNL-7648, March 1991, and "Technical Summary of the Performance Assessment Computational Exercises for 1990 (PACE-90), Volume 1: Nominal Configuration Hydrogeologic Parameters and Computational Results," SAND90-2726, June 1991, were printed and distributed.

### Geotechnical

Work continued on a Field Work Activities Matrix for the Regulatory & Site Evaluation (RSED) Division Director. The matrix will be used as a management tool to assist in planning fiscal year 1992 field activities.

YMPO approval of the Natural Analog Review Group Management Plan was obtained.

Assisted RSED in systems engineering implementation in three ways:

- Continuing activities to incorporate possible change of nominal width of the Midway Valley trenches from 12 feet to 3 feet (change submitted to YMP from SNL in a letter from Duane Gibson to J. Timothy Sullivan, dated May 24, 1991) into affected YMP and participant documents; mechanism will possibly be via Field Change;
- Initiating a Cost/Schedule Change Request to modify the Work Breakdown Structure to reflect the recent change in the Rock and Soils Properties Study Plan Principal Investigator from RSN to USGS;
- Completing 10 Affected Document Notices for the Division Director.

## II. ANALYSIS & VERIFICATION DIVISION

Completed technical review under Administrative Procedure 1.10Q review procedure for Study Plan 8.3.1.2.2.9 - Site Unsaturated-Zone Modeling - and Synthesis.

Participated in Quality Assurance Administrative Procedure 3.1 review of the "Physical System Requirements - Exploratory Studies Facility," Revision 0. Comments due to OSC by July 5, 1991.

Reviewed draft of Fourth Site Characterization PR. Comments due to YMPO by July 12, 1991.

Developed a "perspective" on design of United States waste packages versus foreign approaches to design in preparation for an upcoming DOE presentation to the Transportation Research Board.

## III. GENERAL INFORMATION ITEMS

The ESFDR revision, incorporating the Calico Hills plan test requirements, was approved by the Change Control Board. The effective document date is July 1, 1991.

The Repository Plan comment verification was completed under YMP Quality Management Procedure 06-04.

Science Applications International Corporation presented the test evaluation matrix for independent cost estimating support to Gary Roberson.

RSN

Development was initiated of a draft perspective drawing of the proposed repository which incorporates the revised reference conceptual design based on interface with Option 30 plus enhancements.

The Independent Technical Review of the ESF North Area Design Studies involving external reviewers and observers resulted in a total of 346 comments received and resolved. Additional comments from the Mine Safety and Health Administration may be forthcoming. Drawings and studies are being updated to reflect the comments.

An interface drawings status meeting was held on July 1, 1991, with Parsons, Brinckerhoff, Quade, and Douglas.

LANL

Test Plan Package 91-5 was completed in support of the design for the general arrangements.

The review on HQ-prepared Physical System Requirements for ESF was completed in June 1991.

Development was begun of a preliminary Safety Analysis Report (SAR) for ESF testing to be incorporated in a preliminary SAR for the project.

A meeting was held with participants on July 2, 1991, to discuss Tracers, Fluids/Materials System Plan.

A Functional Requirements Document for the Integrated Data System was distributed.

LLNL

A meeting was held on July 2, 1991, with Weston and participants to plan for the July 18-20, 1991, meeting with HQ to respond to questions dealing with Total System Life Cycle Cost.

SNL

Modification of experimental procedures and implementation of pertinent environmental, safety, and health requirements needed to begin work at Midway Valley on July 8, 1991, were completed.

IV. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public.

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
<b>A. <u>DOE/HQ Meetings</u></b>			
Thursday, July 31	Program Management Meeting	Las Vegas, NV	C. Gertz
<b>B. <u>Internal and DOE/NV Meetings</u></b>			
Thursday, July 25	TPO Meeting	Las Vegas, NV	C. Gertz
Friday, July 26	Planning & Budget Meeting	Las Vegas, NV	C. Gertz
<b>C. <u>NRC Interactions</u></b>			
Tuesday, July 30	NRC TE on Data Management	TBD	J. Cooper
Wednesday- Thursday, August 7-8	NRC SV on Waste Form: Glass	Savannah River	J. Cooper
Thursday, September 12	NRC Management Mtg. on Procedural Agreements	Washington, DC	T. Bjerstedt
Monday- Tuesday, September 16-17	NRC TE on ESF Design Status	TBD	J. Cooper
Tuesday- Wednesday, October 29-30	NRC TE on Scenario Development & CCDF	TBD	J. Cooper
Tuesday, November 19	NRC Meeting on Regulatory Strategy	Washington, DC	T. Bjerstedt
Wednesday, November 20	NRC Interactions Scheduling Meeting	Washington, DC	J. Cooper

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
<b>D. <u>NWTRB Interactions (P)</u></b>			
Monday, July 15	SG&G Panel Meeting on ESF Design Review Update	Arlington, VA	A. Simmons
Tuesday- Thursday, July 16-18	NWTRB Full Board Meeting	Arlington, VA	A. Simmons
Thursday, August 15	NWTRB T&S Panel Public Hearing	Denver, CO	A. Simmons
Monday- Tuesday, August 26-27	WIPP Tour and Roundtable Discussion	Albuquerque, NM	A. Simmons
Thursday- Friday, September 5-6	SG&G Panel Mtg. on Seismic Vulnerabilities	Salt Lake Cty, UT	A. Simmons
Wednesday- Thursday, September 18-19	Borehole Sealing and Backfill	Albuquerque, NM	A. Simmons
Wednesday- Thursday, September 18-19	SG&G Panel Mtg. on ESF Design Review	Seattle, WA TENTATIVE	A. Simmons
Sunday- Tuesday, September 25-27	T&S Panel Meeting	TBD	A. Simmons
Tuesday- Thursday, October 8-10	NWTRB Full Board Meeting	Las Vegas, NV	A. Simmons
Tuesday- Wednesday, November 12-13 TENTATIVE	SG&G Panel Mtg. on Test Prioritization, Site Suitability & ESF Design	Dallas, TX	A. Simmons
<b>E. <u>State and Public Interactions (P)</u></b>			
Tuesday, July 2	Solar Club	Las Vegas, NV	R. Arnold

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
<b>E. <u>State and Public Interactions (P)</u> (Continued)</b>			
Tuesday, July 9	University of California	Santa Barbara, CA	C. Gertz
Wednesday, July 10	Insurance Women of Las Vegas	Las Vegas, NV	C. Gertz
Friday, July 19	Operating Engineers	Las Vegas, NV	C. Gertz
Tuesday, July 30	YM Lecture Series Mining Cultures of the American SW	Info Office Las Vegas, NV	W. Beam
Thursday, August 1	YM Lecture Series Mining Cultures of the American SW	Info Office Beatty, NV	W. Beam
Tuesday, August 13	Americana Group Realtors	Las Vegas, NV	C. Gertz
Tuesday, August 20	Mesquite Club	Las Vegas, NV	J. Younker
Thursday, August 22	Palo Verde Nuclear Power Plant	Wintersburg, AZ	C. Gertz
Monday, September 30	Focus '91 Nuclear Waste Packaging Conference	Las Vegas, NV	C. Gertz
Tuesday, October 15	Inyo County Repub. Women, Federated	Bishop, CA	C. Gertz
Friday, October 18	Discover Nevada Conference	Las Vegas, NV	C. Gertz
<b>F. <u>Exhibits (P)</u></b>			
Saturday- Tuesday, July 13-16	Nat'l Association of Counties Annual Mtg.	Salt Lake Cty, UT	K. Rohrer
Friday, July 19	Public Open House	Las Vegas, NV	K. Rohrer

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
<b>F. <u>Exhibits (P)</u> (Continued)</b>			
Friday, July 19	Operating Engineers	Las Vegas, NV	K. Rohrer
Wednesday- Monday, August 14-19	Nevada State Fair	Reno, NV	K. Rohrer
TBD	Lincoln County Fair	Panaca, NV	K. Rohrer
Saturday- Monday, August 31- September 2	Pioche Labor Day Celebration	Pioche, NV	K. Rohrer
Saturday, September 21	Public Open House	Las Vegas, NV	K. Rohrer
Thursday- Sunday, September 26-29	Women of the 90's	Las Vegas, NV	K. Rohrer
Friday- Sunday, September 27- October 6	Las Vegas Jaycees State Fair	Las Vegas, NV	K. Rohrer
<b>G. <u>TOURS (P)</u></b>			
Friday, July 5	National Society of Black Engineers		M. Wadkins
Wednesday, July 10	Media Outing/Start of New Studies		A. Robison/ G. Fisher
Monday, July 15	Mitsubishi Nuclear Fuels		A. Stephenson
Wednesday, July 17	University of Georgia		J. Stuckless
Wednesday, July 17	Office of Technology Assessment - Carl Johnson - NWPO		TBD

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
G. <u>TOURS (P)</u> (continued)			
Friday, July 19	Public Open House		M. Wadkins
Wednesday, July 24	Bureau of Land Management		M. Wadkins
Wednesday, July 31	Geochemical Technical Exchange		M. Wadkins
Thursday, August 1	OCRWM Site Tour		C. Gertz
Saturday, August 24	Laborers/Miners Union		M. Wadkins
Saturday, September 21	Public Open House		M. Wadkins
Wednesday, October 23	Public Open House		M. Wadkins

YMP:DLH-4581

*Maxwell B Blanchard*  
 Carl P. Gertz  
 Project Manager

## CC:

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