



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: June 3, 1991

SUBJECT: YUCCA MOUNTAIN PROJECT WEEKLY HIGHLIGHTS

Please find enclosed the above-referenced report for the week of May 17, 1991, and the week of May 24, 1991. (Page one of the May 24 report contains a handwritten comment.).

There is nothing requiring specific management attention in these 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

MAY 22 1991

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

OFFICE OF GEOLOGIC DISPOSAL WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
 MAY 17, 1991

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

A. Site Characterization Planning

Exploratory Studies Facility (ESF) Task Force Activities

The YMP Project Manager presented an ESF Activities Update at the May 1991 Office of Civilian Radioactive Waste Management (OCRWM) Program Review.

Raytheon Services Nevada submitted the Engineering Plan to the Yucca Mountain Site Characterization Project Office (YMPO) for acceptance.

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 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.	2/91	TBD

MILESTONE	SCHEDULED DATE	EXPECTED DATE
H2: Prepare transition plan from current document hierarchy to new document hierarchy Management System Improvement Strategy (MSIS).	3/15/91	TBD
H4: Letter transmittal to NRC informing them of implementation of the Design Control Process by OCRWM.	3/31/91	5/24/91

Note: At this time none of the above M/S appear to have a specific impact on portal construction.

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

DELIVERABLE	NORTH AREA (81)	SOUTH AREA (86)
Mock Up	81	45
Computer-aided draft design (CADD)	49	8
Check	28	6
I-D Review	-	-
Quality Assurance (QA) Sign Off	-	-

Mock Up: Sketch 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)

Input is currently being received and compiled by YMPO for PR 4 (reporting period October 1, 1990, to March 31, 1991). A draft for internal YMPO review is expected to be produced this week. A transmittal letter to initiate formal YMPO, OCRWM, and U.S. Department of Energy/Headquarters (DOE/HQ) review is being prepared.

SCP Comments

Reviewer recommendations made during the Integration Group meeting in Las Vegas, Nevada, last week are being incorporated into individual responses that are part of a developing response document for the State of Nevada's comments on the SCP.

SCP Study Plan Status

Study Plan 8.3.1.2.2.3, "Characterization of Percolation in the Unsaturated Zone—Surface Based Study," and Study Plan 8.3.1.2.2.7, "Hydrochemical Characterization of the Unsaturated Zone," were transmitted to the NRC by DOE/HQ.

A revised text in response to comments was received from the U.S. Geological Survey for Study Plan 8.3.1.2.1.4, "Regional Hydrologic System Synthesis and Modeling." The text was sent to reviewers to determine if they feel a comment resolution meeting is necessary or whether we can go directly to comment verification.

A minor revision (revision 1) to Study Plan 8.3.1.8.1.1, "Probability of Magmatic Disruption of the Repository," was approved and sent to Document Control for distribution.

A revision of Study Plan 8.3.1.14.2.1-3, "Soil and Rock Properties Investigation," was completed and sent out to reviewers for verification.

DOE/HQ Quality Assurance (QA) Tracking and Sign-Off Sheets were received for Study Plan 8.3.1.2.2.6, "Characterization of Gas-Phase Movement in the Unsaturated Zone," and Study Plan 8.3.1.5.1.4, "Analysis of the Paleoenvironmental History of the Yucca Mountain Region." These plans are now being readied for approval by YMPO.

 STUDY PLAN BREAKDOWN

In Revision After Screening Review	1
In YMPO and HQ Review	11
Awaiting Comment Resolution Meeting	14
Awaiting Author Revision	8
In YMPO/HQ Verification Audit	3
Verification Complete-Awaiting HQ Sign-off	0
Awaiting YMPO Approval	2
Approved and Awaiting Transmittal to the NRC	2
NRC Acceptance Review	19
NRC Acceptance	4
Total	64

Comments on DOE-Approved Study Plans

No new items this week.

Early Site Suitability Evaluation (ESSE)

The ESSE Core Team held a teleconference on May 14, 1991, to review the Core Team working schedule for the integration of the 10 CFR Part 960 guideline evaluations that were submitted to the ESSE Task Manager on May 6, 1991, in fulfillment of a deliverable in the "T&MSS Implementation Plan for Developing and Implementing a Method for Early Evaluation of Site Suitability." The process of integrating the individual evaluations into the evaluation package will occur from May 28 to July 10, 1991.

 B. Environmental Programs
Environmental Compliance and Permitting

No new items this week.

 C. Field Operations

The Site Manager and staff participated in and provided support to a tour for David Leroy, Nuclear Waste Negotiator.

The planned dates for the forthcoming general public open house tours are as follows:

July 19, 1991
September 21, 1991
October 23, 1991
November 16, 1991

Preparations are underway for providing the communications to support Los Alamos National Laboratory in its volcanism fieldwork activities.

The Area 25 water system modifications design review meeting was conducted. Review comments are being incorporated into the final design package.

D. Project Planning and Control

Received and input into Planning and Control System participant performance data for the period October 1990 through April 1991. The data included actual costs and the latest revised estimate, plus schedule status. The schedule status will be used to compute Budgeted Cost of Work Performed and Schedule Variance.

E. Quality Assurance Implementation

Yucca Mountain Quality Assurance Division (YMQAD) Program staff attended a meeting at Lawrence Berkeley Laboratory (LBL) on Tuesday, May 14, 1991. The meeting was held to discuss Software QA and included comments on LBL's Software Quality Assurance Plan and the process for development and acquisition of software. YMQAD contractor support staff will continue to work with LBL on the effort.

YMQAD Verification staff attended the Auditor/Lead Auditor Training Course conducted May 13-17, 1991, in Las Vegas, Nevada. The course was created to provide a consistent training program for staff members involved in auditing activities.

F. Major Oversight Group Meetings

No new items this week.

G. Public Outreach Activities

The public tour and site open house for Yucca Mountain and Area 25 were conducted on May 10, 1991. Approximately 160 persons attended the open house.

John W. Bartlett

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YMPO staff continued planning for the next round of YMP Update Meetings. The meetings are scheduled for Pahrump, Nevada, on May 20, 1991; Las Vegas, Nevada, on May 21, 1991; and Reno, Nevada, on May 23, 1991.

H. Near Term Decision Plan

No significant change in milestone status from the last Program Management Meeting.

I. 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 and Compliance. A slip in the delivery dates of MSIS products could negatively impact the Independent Cost Estimate and Energy System Acquisition Advisory Board reviews with subsequent delay in the resumption of ESF Title II.

II. ANALYSIS & VERIFICATION DIVISION

Participated in the planning meeting for the DOE/NRC Waste Isolation Pilot Plant Round Table discussion on May 15, 1991, in Albuquerque, New Mexico.

Participated in the ESF mission and functional analysis activities on May 15-17, 1991, in Washington, D.C.

Participated in a meeting on issue resolution and "white papers" on May 16, 1991, in Las Vegas, Nevada.

Participated in preparations for dry runs for the Engineered Barrier Workshop with the Nuclear Waste Technical Review Board (NWTREB) on June 18-20, 1991.

III. SIGNIFICANT ACCOMPLISHMENTS/INFORMATION ITEMS

No new items this week.

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>
A. <u>DOE/EQ Meetings</u>			
No meetings for this reporting period.			
B. <u>Internal and DOE/NV Meetings</u>			
Wednesday, May 15	NV Manager's Program Review	Las Vegas, NV	C. Gertz
Tuesday, May 21	TPO Meeting	Las Vegas, NV	C. Gertz
C. <u>NRC Interactions</u>			
TENTATIVE Thursday, May 30	NRC Interactions Scheduling Meeting	Rockville, MD	A. Simmons
D. <u>NWTRB Interactions (P)</u>			
Wednesday, May 15	WIPP Roundtable Dry Run	Albuquerque, NM	A. Simmons
Monday- Tuesday, May 20-21	Risk & Performance Assessment Panel Meeting	Arlington, VA	A. Simmons
Tuesday, June 11	WIPP Roundtable Discussion	Washington, DC	A. Simmons
Tuesday- Thursday, June 18-20	NWTRB EBS Workshop	Denver, CO	D. Harrison- Giesler
Tuesday- Thursday, June 25-27	Joint SG&G/HG&G Meeting on Testing Review	Denver, CO	A. Simmons
Monday- Tuesday, July 15-16	SG&G Panel Meeting on ESF Design Review Update	TBD	TBD

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
D. <u>NWTRB Interactions (P) (continued)</u>			
Tuesday- Thursday, July 16-18	NWTRB Full Board Meeting	Arlington, VA	A. Simmons
Wednesday- Thursday, September 4-5	Seismic Risk	Salt Lake Cty, UT	A. Simmons
Wednesday- Thursday, September 18-19	Borehole Sealing and Backfill	Albuquerque, NM	A. Simmons
Tuesday- Thursday, October 8-10	NWTRB Full Board Meeting	Las Vegas, NV	A. Simmons
Tuesday- Wednesday, November 12-13	Site Suitability ESF Design Review	TBD	A. Simmons
E. <u>State and Public Interactions (P)</u>			
Monday, May 13	Braggin' Rock Club	Black Canyon City, AZ	A. Gil
Tuesday, May 14	National Assoc. of Accountants	Las Vegas, NV	Various Speakers
Wednesday, May 15	Professional Council of Federal Scientists and Engineers	Las Vegas, NV	A. Robison
Wednesday, May 15	Faye Herron Elementary School	Las Vegas, NV	E. Harle
Thursday, May 16	U.S. Council for Energy Awareness	Washington, DC	C. Gertz
Thursday, May 16	Beatty Information Office—ABC's of Radiation	Beatty, NV	C. McKnight
Monday, May 20	Project Update Meeting	Pahrump, NV	C. Gertz

John W. Bartlett

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>State and Public Interactions (P)</u> (continued)			
Tuesday, May 21	Project Update Meeting	Las Vegas, NV	C. Gertz
Tuesday, May 21	Int'l Workshop on Education	Las Vegas, NV	D. Dobson A. Robison
Wednesday, May 22	Int'l Workshop on Education	Las Vegas, NV	C. Gertz
Thursday, May 23	Project Update Meeting	Reno, NV	C. Gertz
Thursday, May 23	Las Vegas Rotary Club	Las Vegas, NV	A. Robison
Thursday, May 23	MENSA	Las Vegas, NV	A. Robison
Tuesday, May 28	Native American Presentation	Las Vegas, NV	R. Arnold
Wednesday, May 29	Burkholder Junior High School	Henderson, NV	G. Fasano
Thursday, May 30	1991 Fellows Conference	Las Vegas, NV	C. Gertz
Wednesday, June 5	ANS '91 Annual Meeting	Orlando, FL	C. Gertz
Saturday, June 8	Open House Tour	Las Vegas, NV	C. Gertz
Thursday, June 13	Sierra Power Company	Reno, NV	C. Gertz



Carl P. Gertz
Project Manager

YMP:DLH-3857



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

MAY 29 1991

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

OFFICE OF GEOLOGIC DISPOSAL WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
 MAY 24, 1991

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

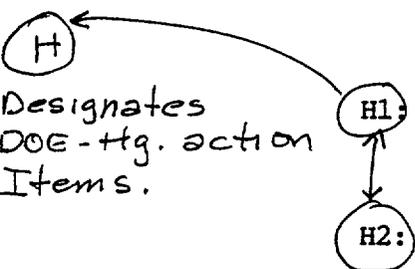
A. Site Characterization Planning

Exploratory Studies Facility (ESF) Task Force Activities

The 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 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.	2/91	TBD
H2: Prepare transition plan from current document hierarchy to new document hierarchy Management System Improvement Strategy (MSIS).	3/15/91	TBD



H4: Letter transmittal to NRC 3/31/91 5/24/91
informing them of implementation
of the Design Control Process by
OCRWM.

Note: At this time none of the above M/S appear to have a
specific impact on portal construction.

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

DELIVERABLE	NORTH AREA (81)	SOUTH AREA (86)
Mock Up	81	45
Computer-aided draft design (CADD)	69	11
Check	52	6
I-D Review	30	-
Quality Assurance (QA) Sign Off	-	-

Mock Up: Sketch 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)

The Yucca Mountain Site Characterization Project Office (YMPO) is
to receive a galley proof of PR 3 on May 24, 1991. After a final
check, the Office of Scientific and Technical Information at
Oak Ridge, Tennessee, will be authorized to print the full
allocation of PRs, and distribution will be initiated. A draft of
PR 4 (reporting period October 1, 1990 - to March 31, 1991) is now
being prepared for internal YMPO review. A full OCRWM and
U.S. Department of Energy/Headquarters (DOE/HQ) review will be
initiated on June 10, 1991.

SCP Comments

A revised draft response document for the State of Nevada's SCP comments was sent to each Integration Group (IG) member so they may continue their review according to their own schedules. The next IG Meeting is in Las Vegas, Nevada, on June 4-6, 1991.

SCP Study Plan Status

Study Plan 8.3.1.12.2.1, "Meteorological Data Collection at the Yucca Mountain Site," was transmitted to the NRC by DOE/HQ.

A comment resolution meeting was held in Denver, Colorado, for Study Plan 8.3.1.2.3.2, "Characterization of Saturated Zone Hydrochemistry."

Verification of comment responses was completed for Study Plan 8.3.1.15.1.3, "Laboratory Determination of the Mechanical Properties of Intact Rock," and the study plan is now in the YMPO approval process.

All comments have been received for Study Plan 8.3.1.17.4.5, "Detachment Faults At or Proximal to Yucca Mountain," and the comments have been sent to the author for consideration.

STUDY PLAN BREAKDOWN

In Revision After Screening Review.....	1
In YMPO and HQ Review.....	10
Awaiting Comment Resolution Meeting.....	14
Awaiting Author Revision.....	9
In YMPO/HQ Verification Audit.....	2
Verification Complete-Awaiting HQ Sign-off.....	0
Awaiting YMPO Approval.....	3
Approved and Awaiting Transmittal to NRC.....	1
NRC Acceptance Review.....	20
NRC Acceptance.....	4
Total.....	64

Comments on DOE-Approved Study Plans

No new items this week.

Early Site Suitability Evaluation (ESSE)

The ESSE Core Team held a teleconference on May 23, 1991, to finalize the schedule for integrating the 10 CFR Part 960 guidelines analyses that the core team has been tasked with. The product of this integration effort, beginning May 27, 1991, in Las Vegas, Nevada, will be subjected to technical and peer reviews.

B. Environmental Programs

Environmental Compliance and Permitting

No new items this week.

C. Field Operations

The preliminary electrical distribution study accomplished by Raytheon Services Nevada indicate that the system upgrade will cost approximately \$11 million for line construction and \$2 million for capacitors.

The Field Operations Center has supported three public tours this week: The International Education Workshop, the Gilbert Sixth Grade Center, and the Inspector General.

The Reynolds Electrical & Engineering Co., Inc. (REECo), Drilling Department, has been working on Water Well J-13 to repair and replace the pump.

The Site Manager directed REECo to return Joy 1 and Joy 2 drill rigs to the YMP for future use.

D. Project Planning and Control

The Planning and Control System scope, cost, and schedule data was prepared for transmittal to the Independent Cost Estimating Team for review.

E. Quality Assurance Implementation

The Yucca Mountain Quality Assurance Division conducted an audit of U.S. Geological Survey May 20-24, 1991, in Denver, Colorado. The audit was attended by observers from the State of Nevada and NRC.

Manuals for the audit of Lawrence Livermore National Laboratory (LLNL) were distributed to the NRC, the State of Nevada, and Counties. The audit of LLNL is scheduled for June 3-7, 1991.

F. Major Oversight Group Meetings

No new items this week.

G. Public Outreach Activities

YMPO staff supported the YMP Update Meetings, held in Pahrump, Nevada, on May 20, 1991; Las Vegas, Nevada, on May 21, 1991; and Reno, Nevada, on May 23, 1991.

H. Near Term Decision Plan

No significant change in milestone status from the last Program Management Meeting.

I. 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 and Compliance. A slip in the delivery dates of MSIS products could negatively impact the Independent Cost Estimate and Energy System Acquisition Advisory Board reviews with subsequent delay in the resumption of ESF Title II.

II. ANALYSIS & VERIFICATION DIVISION

Attended the 31st Advisory Council on Nuclear Waste Meeting sessions Working Draft #3 of EPA Standard, geophysics integration, and Lunar Crater field trips, May 22-23, 1991, in Bethesda, Maryland.

Participated in the ESF Budget Validation Meeting, May 21-22, 1991, in Las Vegas, Nevada.

Initiated review of the Revised Public Comment Draft (April 1991) of NRC's Staff Technical Position on Investigations to Identify Fault Displacement and Seismic Hazards at a Geologic Repository. Draft responses to be available on May 29, 1991.

Participated in OCRWM Contingency Planning Meeting, May 22-23, 1991, in Silver Spring, Maryland.

Reviewed the Systems Engineering Management Plan revisions and supplied comments.

III. SIGNIFICANT ACCOMPLISHMENTS/INFORMATION ITEMS

All DOE invitations for the June 18-20, 1991, Engineered Barrier System Workshop have been issued. "Dry run" reviews for LLNL presentations/participants have been conducted. Eleven different organizations external to the project including private firms, national

laboratories, and consultants have been confirmed for presentations. An additional twenty invitations have been sent to other agencies to participate as observers and include the NRC, the Nuclear Waste Technical Review Board (NWTBR), the State of Nevada and affected counties, plus others.

IV. UPCOMING EVENTS CALENDAR

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

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Friday, June 14	Program Management Meeting	Washington, DC	C. Gertz
B. <u>Internal and DOE/NV Meetings</u>			
No meetings for this reporting period.			
C. <u>NRC Interactions</u>			
TENTATIVE Thursday, May 30	NRC Interactions Scheduling Meeting	Rockville, MD	A. Simmons
D. <u>NWTBR Interactions (P)</u>			
Tuesday, June 11	WIPP Roundtable Discussion	Washington, DC	A. Simmons
Tuesday- Thursday, June 18-20	NWTBR EBS Workshop	Denver, CO	D. Harrison- Giesler
Tuesday- Thursday, June 25-27	Joint SG&G/HG&G Meeting on Testing Review	Denver, CO	A. Simmons
Monday- Tuesday, July 15-16	SG&G Panel Meeting on ESF Design Review Update	TBD	TBD

John W. Bartlett

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
D. <u>NWTRB Interactions (P) (continued)</u>			
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Tuesday- Wednesday, November 12-13	Site Suitability ESF Design Review	TBD	A. Simmons
E. <u>State and Public Interactions (P)</u>			
Thursday, May 30	1991 OCRWM Fellows Conference	Las Vegas, NV	C. Gertz
Monday, June 3	ANS Committee for New Construction	Orlando, FL	C. Gertz
Wednesday, June 5	ANS '91 Annual Meeting	Orlando, FL	C. Gertz
Saturday, June 8	Open House Tour	Las Vegas, NV	C. Gertz
Thursday, June 13	Sierra Power Company	Reno, NV	C. Gertz
Tuesday, June 25	Minnesota Utility Company	Las Vegas, NV	C. Gertz
Tuesday, July 9	University of California	Santa Barbara, CA	C. Gertz



Carl P. Gertz
Project Manager

YMP:DLH-3976