



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

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TO: Joseph Holonich, Director, HLPD, M/S 4 H 3
FROM: Sr. On-Site Licensing Representatives Office, Las Vegas
DATE: JULY 30, 1993
SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE
WEEK ENDING JULY 16, 1993

Please find enclosed the above-referenced report.

There is nothing requiring specific management attention in the report.

cc: w/enc.: Charlotte Abrams, M/S 4 H 3
Rosetta Virgilio, M/S 3 D 23
Dean Kunihiro, Region 5

JSP:nan
Enclosure as stated

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

WBS 1.2.9.2
QA: N/A

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Lake H. Barrett, Acting Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS
THRU: Linda M. Smith, Acting Associate Director, OGD

OFFICE OF GEOLOGIC DISPOSAL WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
JULY 16, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

A. Site Characterization Activities

Exploratory Studies Facility (ESF)

The 90 percent design review for Design Package 2A will begin on July 19, 1993. Preparations will continue for the 90 percent review for Design Package 1B, which will begin on August 2, 1993.

Construction will continue in the Starter Tunnel, including placement of shotcrete and installation of cement grouted pattern bolts. This work must be completed before excavation of the Starter Tunnel bench begins.

The Underground Construction Subcontract award is expected to occur next week.

Surface-Based Testing (SBT) Activities

Exploratory drilling operations will continue at NRG-4 and UZ-14. Geologic mapping and sampling will continue in the ESF Starter Tunnel between station 1+88 and 1+98 in the crown drift and slash cuts.

Environmental Programs

The staff will attend the National Park Service sponsored coordination meeting concerning environmental impacts to the Devil's Hole pupfish and the Ash Meadows National Wildlife Refuge. The meeting will be attended by various Federal and State agencies with interests in water use in Southern Nevada.

B. Public Outreach and Institutional Activities

Will give a general Yucca Mountain Site Characterization Project (YMP) overview to 50 people at the Institute of Nuclear Materials Management in Scottsdale, Arizona, on July 19, 1993. Will also provide a YMP overview with emphasis on new work status and geology to 25 members of the Fresno Geological Society on July 22, 1993, in Fresno, California.

Carl Gertz, Project Manager, will give a general YMP update to three members of the City of Las Vegas Committee on Yucca Mountain Nuclear Waste Repository on July 19, 1993, in Las Vegas, Nevada.

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Will provide a Yucca Mountain educational presentation to 90 students at Dorothy Eisenberg Elementary School in Las Vegas on July 19, 1993.

Tours to Yucca Mountain, Nevada, will be conducted on July 19, 1993, for two reporters from KVBC-TV, Channel 3; on July 20, 1993, for nine Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) employees; and on July 23, 1993, for 15 guests from ENRESA Spain.

Will give an educational presentation on electricity to 100 people at C. T. Sewell Elementary School in Las Vegas on July 21, 1993.

Institutional and External Affairs (IEA) personnel will staff an exhibit during "Mining Days," on July 17, 1993, in Battle Mountain, Nevada.

II. CRITICAL ITEM STATUS - YMP

A. Site Characterization Activities

ESF

Construction

Excavation was completed on the upper level of the Tunnel Boring Machine (TBM) Starter Tunnel. The upper level is in to its full depth of 60 meters. Preparations are underway to begin excavation of the lower section, or "bench" section. The first bench round is scheduled to be shot on July 27, 1993. Construction is continuing on the stormwater diversion channel around the North Portal area.

On Job Package (JP) 92-20, ESF North Portal Pad and Facilities, the following activities continued: installation of temporary ground support, mapping, hauling of rock to the rock storage area, and rework of the north drainage channel. Site preparation also continued at the concrete batch plant site.

As of July 15, 1993, excavation of the upper level of the Starter Tunnel was completed. The PD-030, NS-030, and SS-030 were drilled, loaded, shot, and mucked out. Installed split set rock bolts and welded wire fabric, and grouted pattern bolts. The face of the pilot drift and the north and south slashes are at 00+60.4 meters (1+98 feet).

Blasting and mucking operations continued. Crown drift and side slashes are excavated to approximate construction station 1+98. Mapping was completed between approximate stations 1+28 and 1+50 on July 10, 1993. Mapping was completed between stations 1+50 and 1+88 on swing and graveyard shifts July 15 and July 16, 1993. Mapping is scheduled to resume on Monday, July 19, 1993.

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The following milestones represent the near-term plan for ESF activities:

Award Subcontract for Underground Construction	July 1993
Begin 90 Percent Design Review, Package 2A	July 19, 1993
Begin 90 Percent Design Review, Package 1B	August 2, 1993
Complete 60 Meters of TBM Starter Tunnel	September 20, 1993

Design

The 50 percent management and independent technical reviews of Design Package 1B (Surface Facilities, North Portal) and Design Package 2 (North Ramp - Surface to Topopah Spring Level) are substantially complete. Design continues on both packages for 90 percent reviews scheduled in July and August 1993. The 90 percent review of Design Package 2A is to begin as scheduled on July 19, 1993.

SBT Activities

Pursuant to receipt of a letter from Project Manager Carl Gertz, the Site Manager and the Director of the Regulatory & Site Evaluation Division (RSED) were directed to cease all drilling operations at UZ-14 and NRG-4 by 6 p.m. on July 12, 1993. This was as a consequence of the Nevada Division of Environmental Protection issuing a "stop order" to the U.S. Department of Energy (DOE) with instructions to cease all drilling at UZ-14 and NRG-4 until an air quality permit would be issued by that office for the operations of the particulate control equipment (e.g., cyclone, bag house and spray columns) for those drill rigs. At 4:26 p.m. on July 13, 1993, verbal authorization was given to commence drilling operations on July 14, 1993, as the permit had been issued by the Nevada Division of Environmental Protection.

On July 14, 1993, a "staking" party was conducted at the forthcoming SD-12 borehole location for future drilling operations. Representatives from the site office, RSED, Raytheon Services Nevada, Reynolds Electrical & Engineering Co., Inc. (REECO), and Science Applications International Corporation were present.

On JP 92-17, drilling with the LM-300 drill rig, the cored depth is 1021.83 feet; the 12 1/4-inch reamed hole is at 1001.59 feet.

On JP 93-2A, NRG-4, drilling continues with the Failing 1500 drill rig. The cored depth is at 611.60 feet with the Odex casing at 256.76 feet.

On JP 92-21, C-Hole Complex Pump Test, the Work Program Phase I (second version) was transmitted for comment and review. Comments were due by close of business on July 16, 1993, to be followed by a comments resolution meeting on July 19, 1993.

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Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Ending Core Depth 7/16/93</u>
UZ-14	1,056.67 feet
NRG-4	633.00 feet

When drilling operations resumed at UZ-14, a fine dry powder cement or old mud was found in the lithophysae on the core. The bottom of the hole is in the Topopah Spring.

The bottom of the NRG-4 hole is in the Topopah Spring - Caprock unit. Present plans are to continue coring to the original determined depth of 720 feet. If the NRG-2B pad is completed, drilling at NRG-4 will cease and a rig will be moved onto NRG-2B.

Bare Mountain Trench and Test Pits

Benching of BMT-2 was completed on July 15, 1993. Excavation of BMTP-6 and BMTP-7 was also completed on July 15, 1993.

Systematic Drillhole (SD)-12

A staking party was held with numerous representatives from the various participant organizations. The group agreed on the road alignment if the grade is acceptable (less than 10 percent). The road must be 20 feet wide. The pad must encroach on the wash to avoid a substantial rock cut. Culverts will be used if necessary. The hole must be 100 feet from the tunnel alignment, but can be no more than 200 feet from the alignment due to technical requirements. Environmental will then begin clearing the area; some turtles may have to be relocated. The portion of the existing road between UZ-16 and the access road will have to be environmentally cleared and then widened to 20 feet.

A portion of the group visited the SD-10 drill site. There was less room than at SD-12. Discussions on scenarios for building a pad were held. The main question was, "Would the hole require the LM-300 drill rig and would the LM-300 drill rig be available"?

Sample Management Facility (SMF)

Drilling Support geologists collected and logged core and cuttings on USW UZ-14 to 1061.8 feet. They collected and logged core on UE25 NRG-4 to 649.4 feet. The SMF processed core and cuttings from USW UZ-14 and UE25 NRG-4.

A total of 195 specimens were removed from core samples for laboratory analysis.

Two core examinations by Sandia National Laboratories (SNL) and the U.S. Geological Survey (USGS) were supported.

The staff continued work on geophysical logging procedures. They also continued to provide monitoring and oversight of prototype drilling tool development activities currently being conducted at Colorado School of Mines.

The core photograph stand at the SMF was modified to improve processing efficiency.

The following is a listing of site characterization field activities that are currently active:

SCP ACTIVITY	TITLE	COMMENTS
8.3.1.3.2.1	Mineralogy, Petrology & Rock Chemistry of Transport Pathways	Outcrop sampling
8.3.1.3.2.2	Mineralogic & Geochemical Alteration	Outcrop sampling
8.3.1.4.2.2	Structural Features within Site Area	Surface mapping, ESF mapping
8.3.1.8.5.1	Characterization of Volcanic Features	Test pits, trenching
8.3.1.14.2	Soil & Rock Properties of Potential Location of Surface Facilities	Test pits, trenching, ramp exploration holes
8.3.1.17.4.2	Location & Recency of Faulting Near Prospective Surface Facilities	Trench mapping
8.3.1.17.4.3	Quaternary Faulting within 100 km of Yucca Mountain	Surface mapping
8.3.1.17.4.4	Quaternary Faulting in NE-Trending Fault Zones	Surface mapping
8.3.1.17.4.10	Geodetic Leveling	Traversing
8.3.1.17.4.6	Quaternary Faulting within Site Area	Trench mapping
8.3.1.2.1.1	Precipitation & Meteorological Monitoring for Regional Hydrology	Ongoing measurements
8.3.1.2.1.2	Runoff & Streamflow	Ongoing measurements
8.3.1.2.2.1	Unsaturated Zone Infiltration	Drilling/logging of neutron-access holes; ponding tests
8.3.1.2.2.2	Water Movement Tracer Tests	C1-36 measurements
8.3.1.2.2.3	Percolation in Unsaturated Zone	UZ drilling/testing
8.3.1.2.2.4	Characterization of YM Percolation in UZ-ESF Investigation	Perched water
8.3.1.2.2.6	Gaseous Phase Movement in Unsaturated Zone	UZ drilling/testing
8.3.1.2.2.7	Unsaturated Zone Hydrochemistry	UZ drilling/testing
8.3.1.2.3.1	Site Saturated Zone Groundwater Flow System	Ongoing monitoring
8.3.1.2.3.2	Saturated Zone Hydrochemistry	Ongoing sampling
8.3.1.15.1.8	In Situ Design Verification	Construction monitoring/testing

Environmental Programs

Two air quality permits were received from the Nevada Division of Environmental Protection for operation of the LM-300 and the Failing 1500 drill rig systems.

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Comment resolution was completed for the draft YMP Self Assessment Implementation Plan and the document was returned to the CRWMS M&O Plans and Procedures Department for further processing. Five environmental compliance surveillances were conducted at the Yucca Mountain site to ensure that site characterization activities are being performed in compliance with permit and programmatic requirements.

Large Block Test

Mobilization began for the demonstration saw cuts.

Regulatory Interactions

Site Characterization Progress Report (PR)

The PR 8 is still in concurrence at DOE/Headquarters (HQ).

Mined Geologic Disposal System (MGDS) Annotated Outline (AO)

A meeting is planned for July 20, 1993, at the Yucca Mountain Site Characterization Project Office (YMPO) to familiarize work breakdown structure (WBS) managers and DOE reviewers with the scope of the AO and the content of Revision 3. The participants are to designate reviewers by July 19, 1993; participant review is scheduled to begin on August 17, 1993. Revision 3 is to be ready for DOE review in mid-September 1993, with a delivery date to the U.S. Nuclear Regulatory Commission (NRC) in late November 1993.

Issue Resolution

The Issue Resolution Steering Group videoconference held on July 15, 1993, focused on the status of current issues and budget for the remainder of fiscal year 1993.

Advisory Committee on Nuclear Waste (ACNW) Interactions

The ACNW meeting to be held July 21-22, 1993, will include a presentation from NRC staff on their Quality Assurance (QA) program. Representatives from RW-20 and RW-30 will attend.

Technical Analysis

The Technical Analysis Branch (TAB) and Performance Assessment (PA) staffs attended the Nuclear Waste Technical Review Board (NWTRB) meeting in Denver, Colorado, July 13-15, 1993. The meeting's agenda was, in part, to present to the full board the progress on this year's Total System Performance Assessment (TSPA), and support to the National Academy of Sciences (NAS) study on technical bases for Yucca Mountain standards. The PA staff made a presentation on "Performance Assessment Efforts in Support of National Academy of Sciences Study," and a presentation entitled, "Total System Performance Assessment (TSPA) II: Repository Integration Program Abstractions Analyzing Nominal Conditions."

The PA staff participated in the DOE/U.S. Environmental Protection Agency (EPA) Technical Information Orientation Meeting in Albuquerque, New Mexico, July 7-8, 1993. The DOE (SNL) presented the status of the Waste Isolation Pilot Plant (WIPP) program to

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representatives from the EPA and to the general public. They also presented how it perceives it is meeting the EPA Code of Federal Regulations that apply to the WIPP program.

The TAB staff met with Bill Scherer of Scherer Associates Inc. to provide input and discuss YMPO reorganization plan development.

The TAB staff attended a Technical Data Base meeting at the Nevada Test Site on July 15, 1993, and a Software Advisory Group meeting in Washington, D.C., July 15-16, 1993.

The PA staff participated in the July 15-16, 1993, Integrated Test Evaluation (ITE) meeting in Las Vegas. The ITE is creating a process for making decisions on testing priorities in the face of technical needs, regulatory concerns, scientific confidence, and cost constraints. The meeting was held to elicit information from three subgroups: ESF, repository, and waste package designers. The task was to identify the key design decisions and how these decisions relate to schedule and the prioritization of site characterization testing.

The TAB Branch Chief attended the PA Management Meeting in Denver on July 12, 1993.

Site Characterization Plan (SCP)/Study Plan (SP) Status

The YMPO approved one SP this week: SP 8.3.1.17.3.5, "Ground Motion at the Site from Controlling Seismic Events."

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO	38	0
In Screening Review	0	0
In YMPO Review	3	0
Awaiting Comment Resolution	3	4
In Verification Audit	5	3
Awaiting YMPO Approval	1	1
Awaiting Submission to NRC	1	0
Awaiting NRC Phase 1 Review	10	0
Accepted by NRC	43	5
Totals	<u>104</u>	<u>13</u>
Total Submitted to NRC	53	5

State of Nevada Comments Status:

Received Comments from the State of Nevada..... 19
 Responses Transmitted to the State of Nevada 18

NRC Comments Status:

Received Comments from NRC	24
Responses Transmitted from DOE to NRC	20

B. Project Planning and Control

Conducted a presentation on Planning and Control System (PACS)/Monitored Retrievable Storage to CRWMS M&O management in Vienna, Virginia; John Piro, DOE/HQ; and Weston staff.

Combined participant PACS cost/schedule status data for June 1993 in the central PACS project-level data base.

Produced and distributed Planning and Scheduling Account Variance Analysis Reports (VAR01) to the participants.

Drafted the approach to develop a PACS Integrated Summary Level Schedule for WBS Elements 1.2.2, 1.2.4, and 1.2.6 for Ted Petrie of DOE to use in briefing the NRC.

Developed preliminary schedule for SD-12.

Generated updated drill hole schedules supporting the Site Investigations Branch.

Supported the Los Alamos National Laboratory (Los Alamos) Test Coordination Office in developing cost and schedule data for JP 93-10 large block experiment site preparation.

Conducted an audit of Cost/Schedule Change Requests issued since February 1993 to identify additional capital equipment not previously included in the participants capital requirements list. Five additional items were identified and provided to DOE for inclusion in their approved capital equipment list.

C. QA Implementation

Determination of Importance and Grading Enhancement

Quality (Q)-List Procedure Development

Review of draft responses to Assessment Team (AT) comments on CRWMS M&O classification processes and products is ongoing.

Q-List and Management Control (MC)-List Implementation

The analysis/evaluation packages for all natural barriers are being finalized for AT concurrence.

A revision to the Q-List and the initial issue of the MC-List continues in the Quality Assurance Procedure 6.2 review process. Both are in verification review.

Waste Isolation Evaluations Review

Review of waste isolation evaluations for three selected SBT activities continues using the flowchart of the processes involved in performing and reviewing these evaluations.

D. Public Outreach and Institutional Activities

Project Manager Carl Gertz gave an update on new work status to 50 members of the NWTRB on July 13, 1993, in Denver.

Gave a general YMP overview to 10 people at the Spring Valley Library on July 15, 1993, in Las Vegas.

Several scientists and IEA staff participated in Discovery Day on July 11, 1993, at the Yucca Mountain Information Office (YMIO) in Las Vegas. Approximately 250 members of the public participated in hands-on activities.

Gave a hydrology presentation to 50 members of the Loyal Order of the Moose on July 16, 1993, in Pahrump, Nevada.

Richard Arnold, a consultant, gave a Native American Indian cultural presentation to 50 students at Fay Herron Elementary School on July 16, 1993, in Las Vegas.

A tour to Yucca Mountain was conducted on July 16, 1993, for 15 guests from International Safeguards Group. John Peck provided a pretour briefing.

The IEA and YMPO staffs attended a meeting with the affected units of local government and the Secretary of Energy in Washington, D.C., on July 12, 1993. They accompanied the Churchill County Commission on a tour of the Braidwood Nuclear Power Plant in Braidwood, Illinois, on July 15, 1993.

The IEA staff delivered TBM displays identical to that developed for the Field Operations Center to the Beatty, Nevada, and Pahrump YMIOS.

The IEA staff attended the National Association of Counties annual meeting in Chicago, Illinois, July 16-18, 1993.

New announcements for the July, August, and September 1993 Public Open House tours of Yucca Mountain were published in local newspapers.

III. Analysis and Verification DivisionGeologic Disposal

The staff participated in the NWTRB Full Board Meeting July 13-14, 1993, in Denver; a planning meeting on activities related to Section 801 of the Energy Policy Act on July 15, 1993, in Denver; and a YMPO demonstration of PACS on July 14, 1993, in Las Vegas.

The DOE comments on the NRC Draft Regulatory Guide DG-3003, "Format and Content for the License Application for the High-Level Waste Repository," were reviewed.

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MGDS

A meeting of the Section 801 Working Group was held on July 15, 1993, to discuss the draft framework of considerations for activities and status of plans for the August 1993 NAS Committee meeting.

The staff attended the NWTRB meeting on the science and engineering aspects of thermal loading July 13-14, 1993, in Denver.

The Convergence Diagram was prepared for YMPO review.

IV. GENERAL INFORMATION ITEMS

Regarding WBS 1.2.2.2.2 (Hydrologic Properties of the Waste Package Environment), work by Lawrence Livermore National Laboratory (LLNL) has begun to develop an analytical model that represents transient (or cyclic) refluxing and boiling in fractures. This model calculates the distance that channelized flow travels down the fracture before water in the fracture is boiled away. It also calculates the fluxes for those fractures with flows capable of reaching the repository.

David Bish, Los Alamos, presented a talk on past mineralogical alteration at Yucca Mountain as an analog to potential future repository-induced alteration at the NWTRB meeting on July 13, 1993, in Denver.

Barbara Carlos, Los Alamos, attended the Sample Overview Committee meeting at the SMF July 13-14, 1993.

David Vaniman and Schon Levy, both of Los Alamos, visited the SMF to specify sampling intervals for UE25 UZ-14 and USW NRG-6 July 14-16, 1993.

The Los Alamos Technical Project Officer (TPO) attended the Technical Advisory Group meeting in Denver July 15-16, 1993.

Steven Bolivar, Los Alamos QA Project Leader, reported that to prepare for conformance to the Quality Assurance Requirements Document, the Los Alamos QA program now has 23 procedures in revision, 10 procedures in review, and 3 procedures that have already been revised.

The REECo Information Management Department, Technical Information Section, attended the American Nuclear Society (ANS) Annual Meeting in San Diego, California. S. A. Zigler, Senior Technical Writer, is a member of the Power Division Program Committee and participated in the committee meeting. She has also accepted a position as co-organizer for the Community Alert session for the ANS Annual Meeting to be held in New Orleans in June 1994.

The SNL staff continued design verification activities in the ESF North Ramp Starter Tunnel. These activities are being conducted under SP 8.3.1.15.1.8, "In Situ Design Verification." Current activities include recording seismic data from each blast round and completing preparations for installing rockbolt load cells. Rock quality data is also being collected. These data will be correlated with the ground support classification used and with damage assessments made by inspection of boreholes drilled for instrumentation to verify or improve the design methodology for determining the level of ground support needed in various rock conditions. In the past week, locations were designated

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for drilling holes for the multi-point borehole extensometers (MPBX) gages. One vertical MPBX will be located at approximately the 100-foot point. The second MPBX station will be at the 200-foot point. Additional stations will be designated as construction proceeds beyond the 200-foot point. Location will depend on local geological structure and rock conditions.

Analysis to support the design of the north ramp are continuing. This week, the static analysis for the north ramp section between the portal and the Bow Ridge fault was completed. Results were transmitted to YMPO for inclusion in the design review for the first section of the north ramp.

Regarding TSPA-II, SNL is developing a hydrothermal model for near-field flow and transport based on information from previous studies by LLNL, Lawrence Berkeley Laboratory, DSI, and SNL. The baseline calculations for the human intrusion scenario have been completed for the four analysis cases (SCP and Multi-Purpose Canister (MPC) packages, each at two thermal loads). A presentation on the basic components of TSPA-II was made for the NWTRB in Denver on July 14, 1993.

The USGS performed structural reinterpretation of Drill Hole Wash using a series of local structural contour maps, three-point solutions, and new subsurface data from NRG-6. Mappers constructed a series of short cross sections (from new drill hole data) oriented approximately normal to the alignment of the north ramp. These interpretations were used to upgrade the north ramp cross section and to reflect the most recent drill hole data and upgraded isopach data. The network of north ramp drill hole cross sections will be used in future upgrades of the ramp-scale three-dimensional computer model.

Effects of the July 12, 1993, magnitude 7.6 earthquake in Japan were detected in several wells in the water-level network. Two wells (USW H-5 and USW H-6) are specially configured to detect the larger short-term fluctuations caused by earthquakes, while other wells are monitored only hourly. Because the Rayleigh waves generated by the earthquake arrived at Yucca Mountain shortly before the hour, several wells still were responding when measurements were taken on the hour. Fluctuations were very small, and thus did not trigger the special instrumentation at USW H-5 and USW H-6.

The USGS saturated zone staff report that transducers were placed in the three wells at the C-Well Complex to begin collection of background water-level fluctuations in preparation for the upcoming tests at the complex. The data acquisition systems for the first tests also are being tested.

Tectonics staff continued logging trenches excavated across the Stagecoach Road fault. The trench log for SCR-T1 was completed and logging commenced on SCR-T2. Data from the trench logs will be used to determine slip rates on the fault and to estimate seismic hazards at Yucca Mountain.

Field work was conducted this week to evaluate the Miocene-Paleozoic contact at the Calico Hills. Geologic mapping of the contact was completed. Data collected will be used to produce a geologic map of the structurally complex area east of Yucca Mountain.

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The DOE Configuration Management Enhancement Task Group Final Report was published for submittal to DOE/Office of Civilian Radioactive Waste Management (OCRWM) senior management by DOE co-leaders.

The waste package thermal variation study was completed. Shielding evaluations for defense high-level waste containers have been completed and will be delivered to Systems Studies after review.

Preliminary cost estimates were provided for repository construction and operation to the MPC study.

V. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public. Educational presentations and State and Public Interactions are coordinated by the Speakers Bureau; contact Jacqueline Brandt at (702) 794-7896 or Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are coordinated by Joanna Magruder at (702) 794-7056, Public Update Meetings are coordinated by Rebecca Nick at (702) 794-7769, and Tours are coordinated by Carleen Hill at (702) 794-7375 or Kelly Doyle at (702) 794-7133.

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
A. <u>DOE/HQ Meetings</u>			
Wednesday, July 21	OCRWM Program Management Meeting	Washington, DC	L. Smith/ C. Gertz
B. <u>CRWMS M&O/DOE Meetings</u>			
Thursday, July 29	YMPO Monthly Management Meeting	Las Vegas, NV	C. Gertz
Wednesday, August 4	CRWMS M&O Program Management Review	Vienna, VA	L. Smith/ C. Gertz
C. <u>Internal and DOE/Nevada Operations Office (NV) Meetings</u>			
Wednesday, July 21	NV Monthly Program Review	Las Vegas, NV	L. Smith/ C. Gertz
Friday, July 30	TPO Meeting	Las Vegas, NV	C. Gertz
Friday, July 30	Planning and Budget Meeting	Las Vegas, NV	C. Gertz
D. <u>NRC Interactions</u>			
Tuesday- Wednesday, July 27-28	Technical Exchange - ESF Title II Design and Design Control (P)	Las Vegas, NV	T. Bjerstedt

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
D. <u>NRC Interactions</u> (Continued)			
Tuesday, August 24	Technical Exchange - Substantially Complete Containment & Waste Package/ Engineered Barrier System (EBS) Design Concepts (P)	Washington, DC	T. Bjerstedt
Wednesday, October 13	Technical Exchange - Radioactive Migration in the Unsaturated Zone (P)	Albuquerque, NM	T. Bjerstedt
Thursday, October 14	Technical Exchange - Near-Field Phenomena Related To Radio- nuclide Releases from the EBS (P)	Albuquerque, NM	T. Bjerstedt
Friday, October 15	Los Alamos Site Visit (P)	Los Alamos, NM	T. Bjerstedt
Wednesday, November 17	Interactions Scheduling Management Meeting (P)	Washington, DC	T. Bjerstedt
Thursday, November 18	Seismic Hazards Assessment Technical Meeting (P)	Washington, DC	T. Bjerstedt
E. <u>NWTRB Interactions</u>			
Tuesday- Friday, October 19-22	NWTRB Full Board Meeting (P)	Las Vegas, NV	J. Cooper
Monday- Tuesday, November 1-2	NWTRB Joint T&S/ EBS Panel Workshop (P)	TBD	J. Cooper
Monday- Wednesday, January 10-12, 1994	NWTRB Full Board Meeting (P) (Tentative)	Arlington, VA	J. Cooper
Monday- Wednesday, April 11-13, 1994	NWTRB Full Board Meeting (P) (Tentative)	Reno, NV	J. Cooper
Monday- Wednesday, July 11-13, 1994	NWTRB Full Board Meeting (P) (Tentative)	Denver, CO	J. Cooper

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>NWTRB Interactions (Continued)</u>			
Wednesday- Friday, October 12-14 1994	NWTRB Full Board Meeting (P) (Tentative)	Las Vegas, NV	J. Cooper
F. <u>ACNW Interactions</u>			
Tuesday- Thursday, July 20-22	ACNW 55th Meeting (P)	Bethesda, MD	A. Gil
Wednesday- Thursday, August 25-26	ACNW 56th Meeting (P)	TBD	A. Gil
Wednesday- Thursday, September 29-30	ACNW 57th Meeting (P)	TBD	A. Gil
Wednesday- Thursday, October 27-28	ACNW 58th Meeting (P)	Las Vegas, NV	A. Gil
Monday- Tuesday, November 22-23	ACNW 59th Meeting (P)	TBD	A. Gil
Wednesday- Thursday, December 15-16	ACNW 60th Meeting (P)	TBD	A. Gil
G. <u>NAS Interactions</u>			
Thursday- Friday, August 26-27	NAS Committee on Yucca Mountain Standards-Alternative Formulations of a Risk-Based Standard (P)	Las Vegas, NV	S. Jones
<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions</u>			
Sunday, July 18	Institute of Nuclear Materials Management	Scottsdale, AZ	J. Peck
Monday, July 19	Dorothy Eisenberg Elementary	Las Vegas, NV	J. Hartley
Monday, July 19	City of Las Vegas Committee on Yucca Mountain Nuclear Waste Repository	Las Vegas, NV	C. Gertz

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions</u> (Continued)			
Wednesday, July 21	C. T. Sewell Elementary School	Las Vegas, NV	T. Kaish/ M. Griffin
Thursday, July 22	Fresno Geological Society	Fresno, CA	J. Peck
Sunday, July 25	Yucca Mountain Lecture Series (P)	Pahrump, NV	T. Loughead
Monday, July 26	Washoe County Commission	Reno, NV	A. Robison
Tuesday, July 27	Yucca Mountain Lecture Series (P)	Las Vegas, NV	T. Loughead
Wednesday, July 28	ANS Teacher Workshop	Deerfield, MA	B. Reilly/ J. Peck
Monday, August 2	U.S. Council on Energy Awareness Energy Information Centers	Chicago, IL	C. Gertz
Monday- Friday, August 2-6	Desert Explorers Camp, YMCA	Las Vegas, NV	Various Speakers
Friday, August 6	University of Utah	Brianhead, UT	TBD
Monday- Friday, August 9-10	Desert Explorers Camp, YMCA	Las Vegas, NV	Various Speakers
Thursday, August 12	Second International New Avenues in Risk and Crisis Management Conference	Las Vegas, NV	TBD
Tuesday, August 17	1993 American Institute of Chemical Engineers Summer National Meeting	Seattle, WA	TBD
Wednesday, August 18	Second International Mixed Waste Symposium	Baltimore, MD	TBD
Thursday- Friday, August 19-20	YMCA	Las Vegas, NV	A. Gil
Friday, August 20	Loyal Order of the Moose	Pahrump, NV	K. Beall

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions</u> (Continued)			
Tuesday, August 24	Yucca Mountain Lecture Series (P)	Las Vegas, NV	D. Rakestraw K. Rautenstrauch
Thursday, August 26	Yucca Mountain Lecture Series (P)	Beatty, NV	D. Rakestraw K. Rautenstrauch
Wednesday- Thursday, September 1-2	C. P. Squires Elementary	N. Las Vegas, NV	R. Arnold
Monday- Tuesday, September 6-7	C. P. Squires Elementary	N. Las Vegas, NV	R. Arnold
Tuesday, September 7	International Atomic Energy Course	TBD	TBD
Friday, September 10	Public Gas Service Gas Company	TBD	TBD
Monday, September 13	Entergy Energy Corporation	Las Vegas, NV	TBD
Sunday, September 26	Yucca Mountain Lecture Series (P)	Pahrump, NV	D. Sorensen
Sunday, September 26	Children's Discovery Museum	Las Vegas, NV	R. Arnold
Monday, September 27	1993 I&EC Division Symposium	Atlanta, GA	TBD
Tuesday, September 28	Yucca Mountain Lecture Series (P)	Las Vegas, NV	D. Sorensen
Monday, November 15	American Nuclear Society	San Francisco, CA	TBD
Sunday, February 27, 1994	Waste Management Symposia	Tucson, AZ	TBD
Sunday, March 20, 1994	Risk Management Quarterly Association	San Diego, CA	TBD
<u>Date</u>	<u>Event</u>	<u>Location</u>	

I. Exhibits Scheduled

Saturday, July 24	Public Open House (P)	Las Vegas, NV
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Lake H. Barrett

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<u>Date</u>	<u>Event</u>	<u>Location</u>
I. Exhibits Scheduled (Continued)		
Friday-Sunday, August 20-22	Home Show (P)	Las Vegas, NV
Saturday, August 21	Public Open House (P)	Las Vegas, NV
Tuesday-Monday, August 24-30	Nevada State Fair (P)	Reno, NV
Thursday-Tuesday, September 2-7	Elko County Fair (P)	Elko, NV
Thursday-Monday, September 2-6	Tri-County Fair (P)	Bishop, CA
Wednesday-Friday, September 15-17	Nevada League of Cities	Henderson, NV
Friday-Sunday, September 17-19	Harvest Day Festival (P)	Pahrump, NV
Saturday, September 25	Public Open House (P)	Las Vegas, NV
Tuesday-Saturday, September 28- October 2	Nevada Library Association	Elko, NV
Friday-Sunday, October 1-10	Jaycee State Fair (P)	Las Vegas, NV
Saturday, November 6	Boy Scouts Expo	Las Vegas, NV
<u>Date</u>	<u>Event</u>	<u>Escorts</u>
J. Tours Scheduled		
Monday, July 19	KVBC-TV, Channel 3	T. Bjerstedt
Tuesday, July 20	CRWMS M&O Employees	B. Cameron
Friday, July 23	ENRESA Spain	R. Levich/ M. Voegele

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
J. <u>Tours Scheduled (Continued)</u>		
Saturday, July 24	Public Open House (P)	Various Escorts
Thursday, July 29	State of Minnesota Department of Public Service	TBD
Thursday, August 5	OCRWM Communicators Meeting	B. Crowe/ M. Wadkins
Friday, August 6	Military Order of Laos	P. Carmack
Thursday, August 12	New York Power Authority	TBD
Tuesday, August 17	American Nuclear Energy Council	TBD
Saturday, August 21	Public Open House (P)	Various Escorts
Monday, September 13	Senior Tripsters	TBD
Monday, September 20	Waste Package Development Workshop	R. Fish
Saturday, September 25	Public Open House (P)	Various Escorts
Tuesday, September 28	Southern Nevada Chevron Retirees Association	TBD
Tuesday, September 28	Entergy Energy Group	D. Bradford
Thursday, September 30	League of Women Voters	TBD
Friday, October 1	Chubu Electric Power, Japan	TBD
Tuesday, October 19	National Association of Regulatory Utility Commissioners	TBD
Wednesday, October 20	Wildland Shrub and Arid Land Restoration Symposium	K. Ostler

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
J. <u>Tours Scheduled</u> (Continued)		
Saturday, October 23	Public Open House (P)	Various Escorts


Carl P. Gertz
Project Manager

YMP:RVB-5160

cc:

H. H. Brandt, HQ (RW-13) FORS
J. C. Bresee, HQ (RW-10) FORS
S. J. Brocoum, HQ (RW-22) FORS
B. A. Cerny, HQ (RW-12) FORS
M. A. Ferguson, HQ (RW-5.1) FORS
T. H. Isaacs, HQ (RW-4) FORS
G. P. King, HQ (RW-5.1) FORS
J. B. Easterling, HQ (RW-5.2) FORS
R. A. Milner, HQ (RW-40) FORS
F. G. Peters, HQ (RW-2) FORS
Samuel Rousso, HQ (RW-10) FORS
J. D. Saltzman, HQ (RW-5) FORS
J. P. Roberts, HQ (RW-30) FORS
C. M. Smith, HQ (RW-2) FORS
A. P. Gupta, HQ (PR-242) FORS
Marianne Heiskell, ORO
J. H. Anttonen, BWI, Richland, WA
Ron Pope, ORNL, Oak Ridge, TN
P. S. Justus, NRC, Las Vegas, NV
Florindo Mariani, White Pine County, Ely, NV
L. W. Bradshaw, Nye County, Tonopah, NV
W. L. Offutt, Nye County, Tonopah, NV
P. A. Niedzielski-Eichner, Nye County, Chantilly, VA
V. E. Poe, Mineral County, Hawthorne, NV
Jason Pitts, Lincoln County, Pioche, NV
Lander County Board of Commissioners, Battle Mountain, NV
Yucca Mountain Information Office, Eureka County, Eureka, NV
J. D. Hoffman, Esmeralda County, Goldfield, NV
D. A. Bechtel, Clark County, Las Vegas, NV
Cyril Schank, Churchill County, Fallon, NV
B. R. Mettam, Inyo County, Independence, CA
M. L. Baughman, Intertech Consultants, Las Vegas, NV
Donald Schweitzer, BNL, Upton, NY
D. T. Oakley, LANL, Washington, DC
J. A. Docka, Weston, Washington, DC
R. P. Gamble, Weston, Washington, DC
S. L. Love, Weston, Washington, DC
J. L. Smith, Occidental, CA
C. H. Johnson, NWPO, Carson City, NV
R. R. Loux, NWPO, Carson City, NV
Scott Peterson, ANEC, Washington, DC
C. J. Henkel, EEI, Washington, DC
David Howell, IG, Las Vegas, NV