



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

Reply to:
301 E. Stewart Ave., #203
Las Vegas, NV 89101

Tel: (702) 388-6125

TO: Joseph Holonich, Director, HLPD, M/S 4 H 3
FROM: Sr. On-Site Licensing Representatives Office, Las Vegas
DATE: JULY 1, 1993
SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE
WEEK ENDING JUNE 18 and JUNE 25, 1993

Please find enclosed the above-referenced reports.

There is nothing requiring specific management attention in the reports.

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

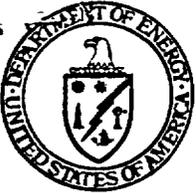
NOTE TO CHARLOTTE: Also enclosed is the SNL May Monthly Highlights and
Status Report.

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NH 07/13/93
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WM-11



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

JUN 21 1993

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 (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
JUNE 18, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

A. Site Characterization Activities

Exploratory Studies Facility (ESF)

Design activities will continue in preparation for 90 percent design reviews in July and August 1993.

Construction will continue in the Starter Tunnel, including placement of shotcrete, installation of cement grouted pattern bolts, and excavation of the pilot drift.

Sample Management Facility

Double shift support will be provided on UE-25 NRG-4; the anticipated start date is June 16, 1993. Geophysical logging activities on USW UZ-16 and UE-25 NRG-6 are expected to begin the week of June 21, 1993.

B. Public Outreach and Institutional Activities

Carl Gertz, Project Manager, will give a general Yucca Mountain Site Characterization Project (YMP) overview to approximately 350 people at the Rapid Excavation and Tunneling Conference in Boston, Massachusetts, on June 14, 1993.

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II. CRITICAL ITEM STATUS - YMP

A. Site Characterization Activities

ESF

Excavation continues on the Tunnel Boring Machine (TBM) Starter Tunnel at the North Portal. The pilot drift is in approximately 30 meters and the north and south slashes are in approximately 29 meters each, as of June 11, 1993.

Construction is continuing on surfacing (base course aggregate application) of the North Portal access road and on the stormwater diversion channel around the North Portal area.

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

Award Subcontract for Underground Construction	June 1993
Begin 90 Percent Design Review, Package 1B	July 19, 1993
Begin 90 Percent Design Review, Package 2	August 11, 1993
Complete 60 Meters of TBM Starter Tunnel	September 20, 1993

As a result of concerns expressed by YMP personnel regarding possible movement of the rock mass in the highwall over the Starter Tunnel, Sandia National Laboratories (SNL) has been monitoring the vertical closure of the tunnel at four locations. This week, we completed reinstallation of lower anchors for two stations and began reestablishing baseline measurements. As the top heading advances, we will install more temporary stations to monitor rock movement during construction. We have also completed installation of load cells to monitor load changes on rock bolts in the highwall at the portal. The intent of this activity is to provide data to the constructor so that they may make continuous evaluations of safety conditions as construction proceeds.

Field Operations

Regarding JP 92-20, ESF North Portal Pad and Facilities, placing of aggregate base course on the access road continued; SNL installed load cells; and thirteen 10-foot pattern rockbolts were installed and are being grouted into place. Four slash rounds were drilled, loaded, shot, and mucked out. Shotcrete was applied in the lattice girder area of the tunnel. The face of the pilot drift is at

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102 feet and the faces of both the north and south slashes are at 94 feet. On June 10, 1993, geologic mapping was completed for NS-009 through NS-017 and SS-009 through SS-017. Shotcrete application resumed following completion of mapping; installation and grouting of pattern bolts also continued. The next excavation blast is expected to take place on June 17, 1993.

No tours were conducted during this reporting period. The Site Manager and Field Operations Center staff are finalizing preparations for the monthly general public open house and site tour on June 19, 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 nearing completion. The final comment resolution process is in progress. Design continues on both packages for 90 percent reviews scheduled for July and August 1993.

Field Activities Progress

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Starting Core Depth 6/8/93</u>	<u>Ending Core Depth 6/11/93</u>	<u>Total Planned Depth</u>
UE NRG-2	260.59 feet	294.06 feet	249.06 feet
UE NRG-5	1107.38 feet	1350.00 feet	1350.00 feet
USW UZ-14	682.04 feet	762.13 feet	2000.00 feet

Deepening of Boreholes NRG-2 and NRG-5 were completed. Geologic mapping continues on the ESF slash cuts. Backfilling at the ESF test pits south of "H" road has begun.

NRG-4 drilling expected to commence June 17, 1993; proposed total depth will be 725 feet.

A total of 1898 feet of core from Boreholes USW UZ-14, UE-25 NRG-2, UE-25 NRG-2A, UE-25 NRG-3, and UE-25 NRG-5 were laid out for examinations conducted by the U.S. Geological Survey (USGS) and SNL.

A total of 280 specimens were shipped to USGS and an additional 87 specimens were removed.

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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

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Environmental Field Programs

Six environmental compliance surveillances were conducted at the Yucca Mountain, Nevada, site to ensure that site characterization activities are in compliance with environmental permit and programmatic requirements. Ten preactivity survey requests were processed as required by Administrative Procedure (AP) 8.1.

The staff coordinated a visit to the Yucca Mountain site by a Southern Paiute spiritual leader to conduct a ceremonial blessing of three disturbed archaeological sites.

An Environmental Compliance Audit of the Desert Research Institute was initiated, as required in AP 5.43, to ensure that the program is in compliance with environmental permitting and programmatic requirements.

Four portable warehouses were received to be used in the installation of a central YMP hazardous waste accumulation area.

Block Heater Test

The procurement package for the mode retaining frame was approved by Lawrence Livermore National Laboratory (LLNL)-YMP and submitted to the LLNL Procurement Department to obtain bids.

Regulatory Interactions

Site Characterization Progress Report (PR)

The concurrence draft of PR 8 was sent to the U.S. Department of Energy (DOE)/Headquarters (HQ) on June 4, 1993. The Yucca Mountain Site Characterization Project Office (YMPO) expects concurrence from the Secretary of Energy by June 12, 1993.

Advisory Committee on Nuclear Waste (ACNW) Interactions

The ACNW has proposed a working group meeting on the Engineered Barrier System (EBS) on July 21, 1993. Potential topics for discussion include a briefing on the overall EBS program, the role of site characterization in defining the EBS, the multi-purpose canister, and a description of the EBS design and concepts. Final agenda topics are under discussion. The RW-30, RW-40, and YMPO are coordinating work on the meeting.

Mined Geologic Disposal System (MGDS) Issue Resolution

The next meeting of the MGDS Issue Resolution Steering Group is a videoconference scheduled for June 16, 1993, from 8 a.m. to 12 p.m., Pacific Standard Time. Topics for discussion include the status of all issues. The meeting will include a briefing on the planned topical report, "Methodology for Seismic Hazards Assessment at Yucca Mountain." A letter has been prepared for transmittal to the U.S. Nuclear Regulatory Commission (NRC) advising them of the content of the planned topical report.

Copyright clearances have been obtained on all references cited in the Erosion Topical Report; the references are being copied for transmittal to NRC.

Technical Analysis

Technical Analysis Branch staff participated in the paper review for the American Nuclear Society (ANS) Focus '93 conference, attended a meeting on thermal histories for the Total System Performance Assessment, and participated in a "dry run" for presentations to the National Academy of Sciences (NAS) Board on Radioactive Waste Management, scheduled for June 24, 1993. The staff also met to discuss the status of the C-well testing program.

The Performance Assessment staff attended the kickoff meeting for the Integrated Test Evaluation task force to incorporate design issues. They also continued review of the SNL report on recommendations for modification to controls to mitigate accidental water release in the ESF, the Performance Assessment Management Plan, and the 1994 Annual Plan.

Site Characterization Plan/Study Plan (SP) Status

No new SPs were approved by YMPO this week. A minor revision to SP 8.3.1.4.3.1, Revision 1, "Systematic Acquisition of Site-Specific Subsurface Information," was approved by YMPO this week.

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO	40	0
In Screening Review	0	0
In YMPO Review	2	0
Awaiting Comment Resolution	2	4
In Verification Audit	7	4
Awaiting YMPO Approval	1	0
Awaiting Submission to NRC	0	0
Awaiting NRC Phase 1 Review	11	0
Accepted by NRC	41	5
Totals	104	13
Total Submitted to NRC	52	5

State of Nevada Comments Status:

Received Comments from the State of Nevada.....18
 Responses Transmitted to the State of Nevada18

NRC Comments Status:

Received Comments from NRC21
 Responses Transmitted from DOE to NRC19

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B. Project Planning and Control

The participant Planning and Control System (PACS) cost/schedule status data for May 1993 were received. The status was uploaded from the participant workstations to PACS, and the new data were calculated through the PACS rollup in all participant data bases.

C. Quality Assurance Implementation

The USGS Audit YMP-93-10 is scheduled for June 14-18, 1993.

The Reynolds Electrical & Engineering Co., Inc. (REECO), Audit YMP-93-12 is scheduled for June 21-25, 1993.

Surveillance 93-026 of USGS Calibration of Measuring and Test Equipment is scheduled for June 29-30, 1993.

Surveillance 93-025 of REECO Training and Qualification of Personnel was conducted June 2-9, 1993.

Surveillance 93-027 of USGS Measurements of Sub-Surface Moisture Content at the Nevada Test Site was conducted June 6-11, 1993.

Determination of Importance and Grading Enhancement

Q-List Implementation

A revision to the Q-List was completed and is in Quality Assurance Procedure 6.2 review. The Management Control-List is in process in the Plans and Procedures Department.

Waste Isolation Evaluations Review

A flowchart of the processes involved in performing and reviewing the waste isolation evaluations was developed and is in Assessment Team review.

D. Public Outreach and Institutional Activities

The YMP sponsored a Girl Scouts Geology Badge Workshop, which was held at the Las Vegas Yucca Mountain Information Office (YMIO) on June 8, 1993.

The LLNL Elementary School Science Study of Nature (LESSON) Teacher Workshop was held for Clark County teachers June 8-18, 1993, at Valley High School in Las Vegas, Nevada. Fifteen teachers attended.

Kathleen Grassmeier, YMPO, gave a presentation on transportation to approximately 200 members of the Transportation Coordination Group in Washington, D.C., on June 9, 1993.

John Hartley, Technical & Management Support Services, gave a Yucca Mountain education presentation to 50 students at C. C. Ronnow Elementary School in Las Vegas on June 10, 1993.

The Institutional and External Affairs (IEA) staff produced a site characterization update video, supported YMP staff with an ABC-TV interview on June 9, 1993, and responded to media inquiries resulting from a press availability meeting held on June 11, 1993, with Linda Smith, Acting Associate Director, OGD.

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The Nye County LLNL LESSON Teacher Workshop is being held at Mercury, Nevada, June 5-25, 1993.

The IEA staff completed development of a new fact sheet on radiation safety.

The IEA staff completed and placed advertisements in three newspapers, promoting the public open house tours and informing the public about the upcoming Yucca Mountain Lecture Series presentation on panning for gold, to be held at the Pahrump, Nevada, and Las Vegas YMIOS on June 20, 1993, and June 22, 1993, respectively.

III. Analysis & Verification Division

Geologic Disposal

The staff participated in the following: a videoconference for coordination of DOE activities related to Section 801 of the Energy Policy Act on June 10, 1993, in Washington, D.C.; a Waste Package Workshop Planning Committee Meeting on June 8, 1993, in Las Vegas; and DOE-NRC Technical Exchanges on Geophysics Integration on June 8, 1993, and on Volcanism on June 9, 1993, in Las Vegas. Also, they attended the House Subcommittee on Energy and Mineral Resources Hearing on June 8, 1993, in Washington, D.C.

Potential topics were developed for one-page issue discussions for distribution to the media. The staff completed technical review of the Defense Waste Processing Facility Waste Qualification Report, Volume 12, in preparation for the Glass Waste Technical Review Group Meeting in Seattle, Washington, June 30-July 1, 1993.

MGDS

The staff coordinated the Section 801 videoconference to discuss DOE's role in the NAS meeting on June 10, 1993.

Occurrence Reporting & Processing System (ORPS)

Materials are being prepared for the OGD ORPS Implementation Meeting in Las Vegas scheduled for late June 1993.

IV. GENERAL INFORMATION ITEMS

Civilian Radioactive Waste Management Systems Management and Operating Contractor (CRWMS M&O)

Change Control Board approval was obtained on the Site Design and Test Requirements Document and Configuration Management was provided with the document distribution. Comment resolution was completed on approximately 50 of 260 ESF Design Requirements Document Draft B comments.

All reviews and responses for the fiscal year (FY) 1993 Repository Engineering Plan were completed and YMPO approval was obtained.

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Los Alamos National Laboratory (Los Alamos)

The Principal Investigator participated in a Consolidated ESF Sampling Field Trip into the North Ramp Starter Tunnel to evaluate the effectiveness of the sampling program with respect to collection of tunnel rock samples for the Water Movement Test activity.

The caisson has been filled with sand and the instrumentation has been installed. Final connection of vacuum manifold and checks are being conducted. Instruments installed include neutron probe access tubes, time-domain reflectrometry probes, soil temperature thermistors, and soil solution samplers. A total of 24 soil solution samplers were placed. Saturation of the caisson is expected to begin next week.

Budget and milestone planning were completed for volcanism studies for FY 1994. New optional activities for volcanism work will include drilling of aeromagnetic anomalies and application of expert opinion to probabilistic studies.

LLNL

Regarding Work Breakdown Structure 1.2.5.4.2 (Waste Package Performance Assessment), work continues on the scoping study of cladding temperature history for various drift emplacement heat loadings, and of cladding creep endurance. Drift backfill 75 years after waste emplacement is assumed. Based on recent literature, the temperatures are somewhat higher than in the earlier parameterization of thermal results, but feasible repository loadings can meet both dryout and cladding goals. The cladding creep model was extended to incorporate reduced pressure load due to the progress of creep; noninclusion is somewhat conservative.

REECO

Industrial Hygiene staff conducted gas measurements at the face area of the North Portal Starter Tunnel and a follow-up survey of Test Cell C for freon leaks. Measurements for both indicated air quality was normal.

The design of a major earthquake display panel is in process by the Technical Information Section. When completed, this display will be exhibited at professional meetings throughout the country.

SNL

Efforts are underway to incorporate the source term code "YMIM" (provided by LLNL) and thermal loading effects (provided by SNL) into the weeps model.

A monte carlo sampling has been performed on data obtained on the distribution of values for bulk permeability and fracture spacing. This sampling may provide the basis for obtaining fracture characteristic information, such as the distribution of fracture apertures and van Genuchten parameters for use in flow calculations.

USGS

A regional compilation of Quaternary faults within 100 kilometers of Yucca Mountain was completed and submitted for review. The map and accompanying text show the locations and descriptive data for over 300 faults. This information is important to both seismic hazard assessment and tectonic modeling.

The water level/earthquake monitoring system at Wells USW H-5 and USW H-6 were upgraded by installing additional storage modules and upgrading data-logger programs.

Saturated zone staff attended a meeting to coordinate logistics for C-well testing. Current plans are to begin installing the data acquisition system on July 6, 1993, and to place the drill rig around July 14, 1993. The only potential problem that was identified concerned electrical grounding of the pump. A sub-group will meet soon to resolve that issue.

The load test for the boom to handle the packers for surface-based air permeability testing was successfully tested.

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 and Public Update Meetings are coordinated by Joanna Magruder at (702) 794-7056, and Tours are coordinated by Carleen Hill at (702) 794-7375.

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
A. <u>DOE/HQ Meetings</u>			
No significant meetings to report.			
B. <u>CRWMS M&O/DOE Meetings</u>			
Monday, June 28	Cost Performance Management Meeting	Las Vegas, NV	C. Gertz
Wednesday, June 30	CRWMS M&O Program Management Review	Televideo	L. Smith/ C. Gertz
C. <u>Internal and DOE Nevada Operations Office Meetings</u>			
No significant meetings to report.			
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
Wednesday, July 28	Technical Exchange - ESF Title II Design (P)	TBD	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/EBS Design Concepts (P)	Washington, DC	T. Bjerstedt
September or October TBD	Glass and Spent Fuel Waste Form Research Site Visit (P) (Tentative)	Argonne, IL	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 Top Radio- nuclide Releases from the EBS (P)	Albuquerque, NM	T. Bjerstedt
Friday, October 15	Technical Exchange - Los Alamos Site Visit Radioactive Nuclide Migration (P)	Los Alamos, NM	T. Bjerstedt
Wednesday, November 17	Interactions Scheduling Manage- ment Meeting (P)	Washington, DC	T. Bjerstedt
Thursday, November 18	Seismic Hazards Assessment Technical Meeting (P)	Washington, DC	T. Bjerstedt
E. <u>Nuclear Waste Technical Review Board (NWTRB) Interactions</u>			
Tuesday- Wednesday, July 13-14	NWTRB Full Board Meeting (P)	Denver, CO	J. Cooper
Tuesday- Thursday, September 28-30	NWTRB Joint T&S/ EBS Panel Workshop (P) (Tentative)	TBD	J. Cooper
Tuesday- Friday, October 19-22	NWTRB Full Board Meeting (P)	Las Vegas, NV	J. Cooper
Monday- Wednesday, January 10-12, 1994	NWTRB Full Board Meeting (P) (Tentative)	Arlington, VA	J. Cooper

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>NWTRB Interactions (Continued)</u>			
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
Wednesday- Friday, October 12-14 1994	NWTRB Full Board Meeting (P) (Tentative)	Las Vegas, NV	J. Cooper
F. <u>ACNW Interactions</u>			
Wednesday- Thursday, July 21-22	ACNW 55th Meeting (P)	TBD	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, June 24	NAS Board on Radioactive Waste Management	Las Vegas, NV	C. Gertz
<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions</u>			
Saturday, June 19	ANS Teacher Workshop	San Diego, CA	J. Peck

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions (Continued)</u>			
Sunday, June 20	Vanishing Desert Greater Opportunity Group	Las Vegas, NV	A. Gil
Sunday, June 20	Yucca Mountain Lecture Series (P)	Pahrump, NV	W. Dickson
Tuesday, June 22	Yucca Mountain Lecture Series (P)	Las Vegas, NV	W. Dickson
Wednesday, June 23	Citibank Child Care	Las Vegas, NV	R. Arnold
Wednesday, June 23	ANS	San Diego, CA	C. Gertz
Thursday, June 24	NAS Board on Radioactive Waste Management	Las Vegas, NV	C. Gertz
Friday, June 25	Diablo Canyon Nuclear Power Plant	Avila Beach, CA	G. Fasano
Wednesday, July 7	University of California, Santa Barbara	Santa Barbara, CA	C. Gertz
Thursday, July 8	National Property Management Association	Las Vegas, NV	J. Peck
Thursday, July 15	Spring Valley Library	Las Vegas, NV	T. Bjerstedt
Friday, July 16	Loyal Order of the Moose	Pahrump, NV	J. Peck
Sunday, July 18	Institute of Nuclear Materials Management	Scottsdale, AZ	C. Gertz
Wednesday, July 21	C. T. Sewell Elementary School	Las Vegas, NV	T. Kaish M. Griffin
Wednesday, July 28	ANS Teacher Workshop	Deerfield, MA	J. Peck
Monday, August 2	United States Energy Council on Energy Awareness Energy Information Centers	Chicago, IL	C. Gertz

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions (Continued)</u>			
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
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
Sunday, September 26	Children's Discovery Museum	Las Vegas, NV	R. Arnold
Sunday, September 26	Focus '93	Las Vegas, NV	TBD
Monday, November 15	ANS	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. <u>Exhibits Scheduled</u>			
Saturday, June 19	Public Open House (P)	Las Vegas, NV	

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<u>Date</u>	<u>Event</u>	<u>Location</u>
I. Exhibits Scheduled (Continued)		
Friday- Saturday, June 25-26	Teen Fair	Las Vegas, NV
Sunday- Wednesday, July 18-21	Institute of Nuclear Materials Management Conference	Scottsdale, AZ
Saturday, July 24	Public Open House (P)	Las Vegas, NV
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
Saturday, September 25	Public Open House (P)	Las Vegas, NV
Tuesday- Saturday, September 28- October 2	Nevada Library Association	Elko, NV
Friday- Monday, October 1-11	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		
Saturday, June 19	Public Open House (P)	Various Escorts
Monday, June 21	Girl Scouts Wider Opportunity Program	TBD
Tuesday, June 22	NAS	TBD

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
J. <u>Tours Scheduled</u> (Continued)		
Friday, June 25	NAS	TBD
Tuesday, July 6	University of Georgia	TBD
Friday, July 16	International Safeguards Group	TBD
Saturday, July 24	Public Open House (P)	Various Escorts
Friday, August 6	Military Order of Laos	P. Carmack
Saturday, August 21	Public Open House (P)	Various Escorts
Monday, September 13	Senior Tripsters	TBD
Thursday, September 23	Waste Package Development Workshop	R. Fish
Saturday, September 25	Public Open House (P)	Various Escorts
Thursday, September 30	League of Women Voters	TBD

YMP:RVB-4656

for 
 Carl P. Gertz
 Project Manager



Department of Energy
Yucca Mountain Site Characterization

WBS 1.2.9.2
QA: N/A

-- Project Office
P. O. Box 98608

Las Vegas, NV 89193-8608

JUN 29 1993

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 (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
JUNE 25, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

A. Site Characterization Activities

Design activities will continue in preparation for 90 percent design reviews in July and August 1993.

Construction will continue in the Starter Tunnel, including placement of shotcrete, installation of cement grouted pattern bolts, and excavation of the pilot drift.

The National Academy of Sciences (NAS) personnel will tour the Yucca Mountain, Nevada, site on June 22 and June 25, 1993.

Waste Isolation evaluations will be performed for the extension of the North Ramp Starter Tunnel to Bow Ridge Fault (North Ramp Package 2A), and the impacts of diesel exhaust emissions.

B. Public Outreach and Institutional Activities

Carl Gertz, Project Manager, will be giving a general overview of the Yucca Mountain Site Characterization Project (YMP) to 100 members of the American Nuclear Society (ANS) in San Diego, California, on June 23, 1993. On the following day, Carl Gertz will speak to 50 members of the NAS Board on Radioactive Waste Management in Las Vegas, Nevada.

II. CRITICAL ITEM STATUS - YMP

A. Site Characterization Activities

Exploratory Studies Facility (ESF)

Excavation continues on the Tunnel Boring Machine (TBM) Starter Tunnel at the North Portal area. The pilot drift and the north and south slashes are in approximately 35 meters as of June 18, 1993.

On Job Package (JP) 92-20, ESF North Portal Pad and Facilities, Reynolds Electrical & Engineering Co., Inc. (REECO), continued placing, grading, and compacting the second lift of Type II aggregate base course on the access road and continued rework of the north drainage channel. Shotcrete was applied in the lattice girder area of the tunnel. Slash rounds NS-018, SS-018, NS-019, and SS-019 were drilled, loaded, shot, mucked and bolted. The face of the pilot drift is at 104 feet and the faces of both the north and south slashes are at 94 feet. The next excavation round, PD-20, is planned for June 18, 1993.

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Construction is continuing on surfacing (base course aggregate application) of the North Portal access road and on the storm water diversion channel around the North Portal area.

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

Award Subcontract for Underground Construction	June 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 nearing completion. The final comment resolution process is in progress. Design continues on both packages for 90 percent reviews scheduled for July and August 1993.

Surface-Based Testing

On JP 93-02A, NRG-4 Drill Pad and Borehole, REECO completed the construction for the drill pad and access road layout. On June 16, 1993, the Site Manager, Field Test Coordinator, and representatives from REECO and Raytheon Services Nevada inspected the site. The U.S. Department of Energy (DOE) accepted the drill pad and access road. Authorization was given to the REECO Drilling Department to mobilize their drilling support trailers, equipment, and drill rig for the start of borehole drilling. This hole will be worked on the day and swing shift schedule starting June 17, 1993.

The Sample Management Facility shipped 18 specimens to Sandia National Laboratories (SNL) and removed an additional 100 specimens.

Field Operating Instruction (YMP-FOI-1401), Borehole Security and Access, was approved.

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Starting Core Depth 6/8/93</u>	<u>Ending Core Depth 6/11/93</u>	<u>Total Planned Depth</u>
UE NRG-2	260.59 feet	294.06 feet	249.06 feet
UE NRG-5	1107.38 feet	1350.00 feet	1350.00 feet
USW UZ-14	682.04 feet	762.13 feet	2000.00 feet

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 Field Programs

As required by Administrative Procedure (AP) 8.1, the Environmental Field Studies conducted six environmental compliance surveillances at the Yucca Mountain site to ensure that site characterization activities are being performed in compliance with environmental permit and programmatic requirements. Processed ten preactivity requests.

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This week we received final stormwater discharge permit approval from the Nevada Division of Environmental Protection. Previously, YMP activities have been proceeding under temporary authorization until the State of Nevada fully implemented their permit program.

Approval to inject tracers and a waiver to drill into the watertable for Borehole SRG-5/SD-11 were from the Nevada Division of Environmental Protection and Nevada State Engineer, respectively.

Regulatory Interactions

Advisory Committee on Nuclear Waste (ACNW) Interactions

The ACNW has cancelled the proposed working group meeting on the Engineered Barrier System (EBS), originally scheduled for July 21, 1993.

Mined Geologic Disposal System (MGDS) Issue Resolution

The MGDS Issue Resolution Steering Group meeting was held June 16, 1993, from 8 a.m. to 12 p.m., Pacific Standard Time. Status of issues, including Seismic Hazards, EBS, and Ground Water Travel Time, were discussed. The annotated outline for the planned topical report "Methodology for Seismic Hazards Assessment at Yucca Mountain" was reviewed.

A revised draft of the Calcite-Silica technical paper, incorporating comment resolution, has been sent to reviewers. Reviewers are to provide feedback by June 23, 1993.

Technical Analysis

The second meeting of the Solubility Working Group took place on June 16, 1993. The group met to discuss and review solubility data that had been provided to Performance Assessment (PA) for 13 radionuclides. The Solubility Working Group is in the process of qualifying solubility data in the technical data base.

The Total System Performance Assessment (TSPA)-2, thermal workshop meeting, took place at Lawrence Livermore National Laboratory (LLNL) on June 11, 1993. The purpose of the meeting was to discuss and, subsequently, determine thermal scenarios and histories for incorporation into TSPA-2. The final conclusion of the meeting was that the individual modelers required additional time to produce results. Consequently, it was decided that the group should meet again in two to four weeks to distribute these results.

Waste Isolation evaluations were completed for the concrete batch plant drillhole NRG-2B and the ESF Package 1A water distribution system.

The PA section of the draft Annual Plan for Work Breakdown Structure 1.2.5 - Regulatory, was prepared with input from SNL, LLNL, and U.S. Geological Survey (USGS). Los Alamos National Laboratory (Los Alamos) and Lawrence Berkeley Laboratory activities were also included. The draft plan was delivered to Russell Dyer, Regulatory and Site Evaluation Division Director, on June 15, 1993, as directed.

Reliability estimates for electronic equipment as a function of temperature and a draft memo summarizing findings were produced. It is unlikely that even specialized electronic equipment can reliably operate above 160 degrees Centigrade without refrigeration. Temperature limits for actual off-the-shelf electronic equipment are likely to be substantially below 160 degrees Centigrade.

Site Characterization Plan/Study Plan (SP) Status

No new SPs were approved by the Yucca Mountain Site Characterization Project Office (YMPO) this week.

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO	40	0
In Screening Review	0	0
In YMPO Review	2	0
Awaiting Comment Resolution	2	4
In Verification Audit	7	4
Awaiting YMPO Approval	1	0
Awaiting Submission to the U.S. Nuclear Regulatory Commission (NRC)	0	0
Awaiting NRC Phase 1 Review	11	0
Accepted by NRC	41	5
Totals	104	13
Total Submitted to NRC	52	5

State of Nevada Comments Status:

Received Comments from the State of Nevada.....18
 Responses Transmitted to the State of Nevada18

NRC Comments Status:

Received Comments from NRC21
 Responses Transmitted from DOE to NRC19

C. Quality Assurance (QA) Implementation

The REECO Audit YMP-93-12 is scheduled for June 21-25, 1993.

Surveillance 93-026 of USGS Calibration of Measuring and Test Equipment is scheduled for June 29-30, 1993.

The USGS Audit YMP-93-10 was conducted for June 14-18, 1993.

Determination of Importance and Grading Enhancement

Q (Quality)-List Procedure Development

A draft description of the processes to be used for development and maintenance of the Q- and Management Control (MC)- Lists, following cancellation of AP-6.17Q, was provided to YMPO for comment.

Q-List Implementation

A revision to the Q-List and the initial issue of the MC-List were completed and are in Quality Assurance Procedure 6.2 review.

D. Public Outreach and Institutional Activities

Carl Gertz gave a general Project overview to approximately 350 people at the Rapid Excavation and Tunneling Conference (RETC) in Boston, Massachusetts, on June 14, 1993.

An educational presentation was given to 80 students from Nate Mack Elementary School at the Yucca Mountain Information Office on June 15, 1993.

An environmental overview presentation was given to 130 teachers and employees of the Palo Verde Generating Station teacher's workshop on June 16, 1993, in Palo Verde, Arizona.

A general overview of the YMP and a geology presentation was given to 50 Girl Scouts and five leaders of the Frontier Girl Scouts Council on June 20, 1993, in Las Vegas.

III. Analysis & Verification Division

Geologic Disposal

The following documents were reviewed and commented on: the Office of Civilian Radioactive Waste Management (OCRWM) Engineering and Specialty Plan, which is being considered as an appendix to the Systems Engineering Management Plan; the Defense Waste Processing Facility Waste Qualification Report, Volume 12, to Argonne National Laboratory in preparation for the Technical Review Group meeting in Seattle, Washington, June 30-July 1, 1993; and the NRC's Draft Staff Technical Position on Consideration of Fault Displacement Hazards in Geologic Repository Design.

In addition, these documents were expedited as follows: revised chief scientist concept package based on comments from RW-1 and OGD; prepared preliminary drafts of Assigned Office and Principal Office responses for the Business Management Review Self-Assessment for review prior to submission to RW-10; and initiated verification review of SP 8.3.1.8.1.2, The Physical Processes of Magnetism and Effects on the Potential Repository.

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IV. GENERAL INFORMATION ITEMS

Systems Engineering completed the kick-off of the internal Civilian Radioactive Waste Management Systems Management & Operating Contractor (CRWMS M&O) conformance verification review of the ESF Design Packages 1B and 2. Representatives from CRWMS M&O/Vienna will perform the review.

Systems Management and Integration evaluated and compiled best existing published information on relative suitabilities of thermal loading, waste package (WP), and emplacement mode alternatives; and included induced far-field temperatures over time and space, near-field temperatures (WP centerline to rock 19 m from borehole), WP failure probabilities for different wall thicknesses and compositions, and operability effects.

YMP staff finalized presentations for the Zeolite 1993 Conference in Boise, Idaho, June 21-25, 1993, where talks will be presented on the following topics: the importance of zeolites at Yucca Mountain; fracture zeolites; thermodynamic modeling of zeolite stability; and the use of K/Ar dating methods on zeolites.

The eight UO₂ dissolution experiments begun in April 1993 as a part of the LLNL test matrix were completed (1.2.2.3.1.1 Waste Form Testing -- Spent Fuel). These eight experiments are at temperatures of 50 degrees Celsius (C) and 75 degrees C, and at subatmospheric oxygen levels of 0.2 percent and 2 percent. This completes the initial test matrix of 19 experiments at alkaline conditions. Additional experiments at related conditions were also run to yield 27 experiments finished since early last year. Detailed analysis of the final results of the full test matrix is required before formal conclusions can be made.

Thermogravimetric Apparatus (TGA) number 2 has been brought out of storage and is now fully operational (1.2.2.3.1.1 Waste Form Testing -- Spent Fuel). Oxidation tests of unirradiated depleted UO₂ are expected to start shortly after a dry run and familiarization with procedures are completed. The thermocouples in TGA number 1 are being calibrated, and this TGA should also be operational shortly.

SNL staff continued construction monitoring 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 rock-bolt load cells. The first rock bolt load cells will be installed upon completion of the installation of the permanent ground support in the first 100 feet of the top heading. The intent of this activity is to provide data to the constructor so that they can make continuous evaluations of safety conditions as construction proceeds.

Analyses to support the design of the north ramp are continuing. The first analysis is an evaluation of the thermal loading on the north ramp from a potential repository. For this analysis, initial thermal loadings of 57, 80, and 100 kW/acre are considered. These results feed an evaluation of the structural stability of the ramp at various locations along its length. This second set of analyses will use rock structure and estimated properties based on data from the NRG holes. SNL is currently developing core logs and rock quality indices to be used for the estimation of rock-mass properties for the analyses. The

third analyses is to evaluate the possible loading on the North Ramp that would result from a seismic event (earthquake or underground nuclear explosion). The analysis will estimate the static and dynamic loading on various sections of the North Ramp based on an assumed 0.4g acceleration. In the past week, final reviews were performed for the thermal and seismic analyses. The results of these analyses should be transmitted to YMPO shortly.

The first suite of QA-qualified rock properties tests from NRG-5 boreholes for the ESF have been completed. Completed tests include 31 unconfined tests, 23 indirect tensile strength tests, and 43 grain density tests. Data from these tests have been transmitted from YMPO for use by the ESF design team.

Technical & Management Support Services submitted its approved draft of the Organizational Description. This draft is required for transition to the OCRWM Quality Assurance Requirements Document (QARD) to the Yucca Mountain Quality Assurance Division (YMQAD) for review and acceptance. Completion of QARD transition is expected by the end of July 1993.

A scoping study on boundary element modeling was initiated this week. The study will use mapped boundary elements of faults and other parameters to mechanistically model fault deformation patterns. A comparison of modeled to actual deformation features at Yucca Mountain will aid in predicting the likelihood and extent of displacement within current or projected seismic regimes.

A number of USGS personnel attended a work-scope consolidation meeting to finalize plans for a number of wells that may be drilled in fiscal year (FY) 1994. The discussion included two UZ holes, two WT holes, one SD hole and one G hole. It was learned that information is lacking to site the G hole until sometime in FY 1994. The SD hole could not be sited precisely at this time, but its location is known close enough to complete most of the requirements document.

YMP staff collected 27 core samples from an outcrop of the Bullfrog Member of the Crater Flat Tuff east of Little Skull Mountain. The samples were obtained to supplement work that they have done in the area to map fractures in the Bullfrog Member. Physical and hydrologic properties will be determined for the core.

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 and Public Update Meetings are coordinated by Joanna Magruder at (702) 794-7056, and Tours are coordinated by Carleen Hill at (702) 794-7375.

	<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
A.		<u>DOE/Headquarters Meetings</u>		

No significant meetings to report.

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
B. <u>CRWMS M&O/DOE Meetings</u>			
Monday, June 28	Cost Performance Management Meeting	Las Vegas, NV	C. Gertz
Wednesday, June 30	CRWMS M&O Program Management Review	Televideo	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
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
Wednesday, July 28	Technical Exchange - ESF Title II Design (P)	TBD	T. Bjerstedt
Tuesday, August 24	Technical Exchange - Substantially Complete Containment & Waste Package/EBS Design Concepts (P)	Washington, DC	T. Bjerstedt
September or October TBD	Glass and Spent Fuel Waste Form Research Site Visit (P) (Tentative)	Argonne, IL	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 Top Radio- nuclide Releases from the EBS (P)	Albuquerque, NM	T. Bjerstedt
Friday, October 15	Technical Exchange - Los Alamos Site Visit Radioactive Nuclide Migration (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

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>Nuclear Waste Technical Review Board (NWTRB) Interactions</u>			
Tuesday- Wednesday, July 13-14	NWTRB Full Board Meeting (P)	Denver, CO	J. Cooper
Tuesday- Thursday, September 28-30	NWTRB Joint T&S/ EBS Panel Workshop (P) (Tentative)	TBD	J. Cooper
Tuesday- Friday, October 19-22	NWTRB Full Board Meeting (P)	Las Vegas, NV	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
Wednesday- Friday, October 12-14 1994	NWTRB Full Board Meeting (P) (Tentative)	Las Vegas, NV	J. Cooper
F. <u>ACNW Interactions</u>			
Wednesday- Thursday, July 21-22	ACNW 55th Meeting (P)	TBD	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

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
F. <u>ACNW Interactions (Continued)</u>			
Wednesday- Thursday, December 15-16	ACNW 60th Meeting (P)	TBD	A. Gil

G. NAS Interactions
No significant meetings to report.

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions</u>			
Tuesday June 29	National Congress of American Indians	Green Bay, WI	M. Powell
Tuesday, July 6	Inyo County	Inyo, CA	C. Gertz
Wednesday, July 7	University of California, Santa Barbara	Santa Barbara, CA	C. Gertz
Thursday, July 8	National Property Management Association	Las Vegas, NV	J. Peck
Monday, July 12	Washoe County Commission	Washoe County, NV	TBD
Tuesday- Wednesday, July 13-14	Nuclear Waste Technical Review Board	Denver, CO	C. Gertz
Thursday, July 15	Spring Valley Library	Las Vegas, NV	T. Bjerstedt
Friday, July 16	Loyal Order of the Moose	Pahrump, NV	J. Peck
Sunday, July 18	Institute of Nuclear Materials Management	Scottsdale, AZ	C. Gertz
Monday, July 19	Dorothy Eisenberg Elementary	Las Vegas, NV	J. Hartley
Wednesday, July 21	C. T. Sewell Elementary School	Las Vegas, NV	T. Kaish/ M. Griffin
Wednesday, July 28	ANS Teacher Workshop	Deerfield, MA	J. Peck
Monday, August 2	U.S. Council on Energy Awareness Energy Information Centers	Chicago, IL	C. Gertz

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
H. <u>State and Public Interactions</u> (Continued)			
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
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	Children's Discovery Museum	Las Vegas, NV	R. Arnold
Sunday, September 26	Focus '93	Las Vegas, NV	TBD
Monday, November 15	ANS	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. <u>Exhibits Scheduled</u>			
Friday- Saturday, June 25-26	Teen Fair	Las Vegas, NV	

<u>Date</u>	<u>Event</u>	<u>Location</u>
I. <u>Exhibits Scheduled (Continued)</u>		
Sunday- Wednesday, July 18-21	Institute of Nuclear Materials Management Conference	Scottsdale, AZ
Saturday, July 24	Public Open House (P)	Las Vegas, NV
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
Saturday, September 25	Public Open House (P)	Las Vegas, NV
Tuesday- Saturday, September 28- October 2	Nevada Library Association	Elko, NV
Friday- Monday, October 1-11	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. <u>Tours Scheduled</u>		
Tuesday, July 6	University of Georgia	TBD
Friday, July 16	International Safeguards Group	TBD
Saturday, July 24	Public Open House (P)	Various Escorts
Thursday, July 29	State of Minnesota Department of Public Service	TBD

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
J. <u>Tours Scheduled</u> (Continued)		
Friday, August 6	Military Order of Laos	P. Carmack
Thursday, August 12	New York Power Authority	TBD
Saturday, August 21	Public Open House (P)	Various Escorts
Monday, September 13	Senior Tripsters	TBD
Thursday, September 23	Waste Package Development Workshop	R. Fish
Saturday, September 25	Public Open House (P)	Various Escorts
Thursday, September 30	League of Women Voters	TBD

YMP:RVB-4782


Carl P. Gertz
Project Manager