



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: AUGUST 25, 1993
SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE
WEEK ENDING AUGUST 6 AND AUGUST 13, 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

310063

9309020191 930825
PDR WASTE
WM-11 PDR

102
WM-11
NH03



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

AUG 20 1993

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

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
AUGUST 13, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

A. Site Characterization Activities

Exploratory Studies Facility (ESF)

Comment resolution will begin on the 90 percent review of Design Package 1B.

Construction will continue in the Starter Tunnel, including bench excavation, placement of fibercrete, and installation of cement grouted pattern bolts.

Sample Management Facility (SMF)

Continue providing drilling support on USW UZ-14 and UE-25 NRG-2B; begin geophysical logging activities on USW WT-2; continue Schmidt Hammer testing on UE-25 NRG-3, UE-25 NRG-2, and UE-25 NRG-6 core.

Surface-Based Testing (SBT)

Pump testing and sampling of water will continue at UZ-14; two daily drilling shifts began on July 26, 1993, and were discontinued on August 12, 1993. Drilling at NRG-2B will continue. Support, installation, excavation, and mapping will continue in the ESF beyond approximate station 0+40. Next week, Vertical Seismic Profiling (VSP) will begin in WT-2. Trenching is tentatively scheduled to begin on August 23, 1993, at Solitario Canyon.

B. Public Outreach and Institutional Activities

Carl Gertz, Project Manager, will provide an update on Yucca Mountain (YM), Nevada, to 200 attendees of the Second International Mixed Waste Symposium on August 19, 1993, in Baltimore, Maryland.

Two tours to YM will be conducted on August 17, 1993: one for 10 interns of the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) and one for 40 guests, comprised of Congressional staff, utility representatives, and members of the American Nuclear Energy Council (ANEC). Carl Gertz will give a pretour briefing for the ANEC tour group.

Lake H. Barrett

-2-

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

A. Site Characterization Activities

ESF

Construction

Excavation of the bench continued this week to approximate construction station 0+68. The next round of geologic mapping, photography, and sampling is tentatively scheduled for August 17, 1993.

On Job Package (JP) 92-20, ESF North Portal Pad and Facilities, the face of the Starter Tunnel bench is at 00+20.7 meters. The face of the starter tunnel upper level remains at 00+60.4 meters. Split set rock bolts and welded wire fabric were installed; grouting of pattern bolts in the tunnel continues.

The following milestone represents the near-term plan for ESF activities:

Complete 60 Meters of Tunnel Boring Machine Starter Tunnel	September 22, 1993
---	--------------------

Design

The 90 percent design review of Package 1B continued. Comments were due by close of business on August 13, 1993. Comment resolution will begin next week, and formal comment resolution meetings are scheduled to begin on August 23, 1993.

Resolution of comments will continue on the 90 percent review of Design Package 2A.

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. The records packages for these reviews are currently being compiled.

SBT Activities

On JP 92-21, C-Hole Complex Pump Test, comments from the Combined Management and Independent Technical Reviews for the Electric System are being resolved. The summary cost estimate was completed and transmitted to the Yucca Mountain Site Characterization Project Office (YMPO). Rework of the North Portal drainage channel continues.

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Current Core Depth 8/13/93</u>	<u>Current Ream Depth 8/13/93</u>	<u>Total Planned Depth</u>
NRG-2B	130.84 feet	130.84 feet	315 feet
UZ-14	1282 feet	1282 feet	2000 feet

AUG 20 1993

On NRG-2B, drilling began on July 30, 1993. The hole is in the Ranier Mesa member of the Timber Mountain tuff. Drive tubes are being used to advance the hole through poorly consolidated unwelded ash fall materials.

At NRG-6, VSP is being performed. This testing began on August 13, 1993, and is expected to be completed on August 15, 1993.

On UZ-14, the bottom of the hole is in the Topopah Spring-basal vitrophyre unit. The most recent deviation survey was taken at 1,250 feet and showed 1 degree 20 minutes deviation from vertical. Water was encountered at 1,256.6 feet on July 30, 1993. Drilling operations have been suspended to facilitate testing and sampling of the water encountered.

Downhole geophysical testing continued in the UZ-16 borehole with Pulse Neutron Decay logs, Spectral Gamma Decay logs, and other gamma-gamma logs being run in the hole. Geophysics is expected to be completed on August 13, 1993. Down hole gas testing is scheduled to begin on August 16, 1993. A draft work program for emplacement and stemming is being prepared.

The Failing 1500 drilling rig was mobilized onto the WT-2 pad on August 12, 1993. The work consisted of removing approximately 65 joints of tubing (30 foot long joints) which was completed on August 13, 1993. Seismic testing is scheduled to begin on August 16, 1993.

Twenty-nine core examinations were conducted at the SMF by Sandia National Laboratories, U.S. Geological Survey (USGS), U.S. Department of Energy (DOE), Los Alamos National Laboratory (Los Alamos), and CRWMS M&O.

Continued to provide monitoring and oversight of drilling tool development activities currently being conducted at Colorado School of Mines. Finished testing drilling tools with EXLOG vibration sub; performing analysis on data collected.

Removed 73 specimens from core samples for various analyses performed by Principal Investigators.

Continued Schmidt Hammer testing on NRG boreholes.

Accepted into the SMF 21 water samples collected by USGS at USW UZ-14.

Continued development of training schedule and curriculum for geotechnician hands-on training program.

Continued development of a new version of the sample tracking data base which will allow for multiple user activities.

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	Cl-36 measurements
8.3.1.2.2.3	Percolation in Unsaturated Zone	UZ drilling/testing Perched water 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

Supported workshop on the Consultative External Review Process sponsored by the Office of Civilian Radioactive Waste Management (OCRWM) to encourage public involvement in the waste management program.

AUG 20 1993

Lake H. Barrett

-5-

Conducted six environmental compliance surveillances at the YM site to ensure compliance with permit and programmatic requirements. Participated in the 90 percent design review of Design Package 1B for compliance with ESF/Design Requirements environmental design requirements.

Safety and Health Compliance

Published and sent two Federal Register Abstracts on Occupational Safety and Health Administration (OSHA) air contaminant regulation corrections.

Completed "white paper" analyzing the impact of DOE Order 5480.29 on YMP activities.

Analyzed OSHA Bloodborne Pathogen enforcement materials for possible application at the YMP.

Performed two surveillances: ESF and NRG-2B.

Large Block Test (LBT)

Assembly is in progress of saw, grounding grid, and sump for the LBT prototype.

Regulatory Interactions

Site Characterization Progress Report (PR)

The PR 8 was held up in the offices of General Counsel and the Secretary. The Secretary was expected to approve the document during the week of August 9, 1993. The revised distribution date for PR 8 is now August 27, 1993.

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

Participant and CRWMS M&O review of Revision 3 of the MGDS AO will begin on August 17, 1993. Revision 3 concentrates on Chapter 3, "The Natural Systems of the Geologic Setting." Comments are due on August 26, 1993.

Issue Resolution

The Substantially Complete Containment Working Group is preparing for the U.S. Nuclear Regulatory Commission (NRC) technical exchange scheduled for August 24, 1993, in Bethesda, Maryland, at the NRC's Phillips Building.

Technical Analysis

Performance Assessment (PA) staff participated in the August 12-13, 1993, Integrated Test Evaluation (ITE) meeting in Las Vegas, Nevada. 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 PA staff participated in the planning of next year's activities of the Groundwater Travel Time Issue Resolution Working Group. Included in planned activities are preparation of a topical report and recommendations of a DOE/NRC information exchange during February or March 1994.

The PA staff continued with the estimation of probabilities for accident sequences initiated by rock falls and transportation mishaps in the ESF components within the proposed MGDS. The structural integrity and strength of rock falls were studied as a function of the rock quality index to estimate the degree of mechanical coupling to waste containers.

The Technical Analysis Branch staff prepared a draft plan for streamlining and integrating Waste Isolation (WI) and Test Interference (TI) evaluations, and tracking controls on activities at the site. A WI/TI plan which streamlines the evaluation process will be prepared by late September 1993.

Site Characterization Plan/Study Plan (SP) Status

Two SPs were approved by YMPO this week: SP 8.3.1.3.6.2, "Diffusion," and SP 8.3.1.12.2.1, Revision 1, "Meteorological Data Collection at the Yucca Mountain Site."

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO	38	0
In Screening Review	0	0
In YMPO Review	2	1
Awaiting Comment Resolution	4	4
In Verification Audit	4	0
Awaiting YMPO Approval	1	3
Awaiting Submission to NRC	0	1
Awaiting NRC Phase 1 Review	11	0
Accepted by NRC	44	5
Totals	104	14
Total Submitted to NRC	55	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

AUG 20 1993

Lake H. Barrett

-7-

B. Project Planning and Control

Received participant Planning and Control System (PACS) cost/schedule status data for July 1993. Uploaded status from the participant workstations to PACS. Calculated the new data through the PACS rollup in all participant data bases, transferred the data to the project-level data base, and produced performance reports.

C. Quality Assurance Implementation

Surveillance 93-035, Geophysical Logging of UZ-16, for YMPO, Science Applications International Corporation, and Raytheon Services Nevada (RSN), will be held at the site the week of August 16, 1993.

USGS Surveillance 93-040, Evaluation of Procedures for Perched Water, will be held at the site the week of August 16, 1993.

Surveillance 93-036, Control of Work Activities, for RSN and Reynolds Electrical & Engineering Co., Inc. (REECO), will be held at the site the week of August 16, 1993.

There are no audits being performed until September 1993.

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

Revisions to the Q-List and the MC-List to incorporate the natural barriers were initiated.

III. GENERAL INFORMATION ITEMS

Verification review of SP 8.3.1.15.2.2, Revision 0, "Characterization of Site Ambient Thermal Conditions," was completed.

The Analysis and Verification Division staff revised the framework for considerations in developing U.S. Environmental Protection Agency standard; worked on revising the convergence plan; and prepared 1994 budget materials for the 1994 planning process.

Regarding Work Breakdown Structure (WBS) 1.2.2.2.1 (Chemical and Mineralogical Properties of the Waste Package Environment), the contract for work on the New Zealand natural analog site was initiated. The screening process to select specific sites for study has been started with initial work focusing on Champagne Pool, where fluid mixing is occurring. The first sampling and simulation activities will consider the ability of the EQ3/6 code to simulate mixing in a setting where diverse chemistries, changes in temperature, and interaction with the atmosphere influence reaction progress. Discussions are underway with the principal corporations controlling proprietary data to schedule a meeting to discuss how best to handle requests for such information.

Bruce Crowe of Los Alamos met with Dr. George Thompson of Stanford University and USGS geophysics staff in Palo Alto, California. Dr. Thompson is reviewing the YMP geophysics program to determine if the present studies are adequate to evaluate the Volcanism issue.

Bruce Crowe also reported that seven tephra pits were constructed, logged, and back filled at the Lathrop Wells volcanic center.

Lake H. Barrett

-8-

David Vaniman of Los Alamos reported that in conjunction with the PACS Fiscal Year (FY) 1994 planning process, a reassessment of sampling strategies and data needs is currently in progress for WBS 1.2.3.2.1.1.1 (Mineralogy, Petrology and Rock Chemistry of Transport Pathways) and WBS 1.2.3.2.1.1.2 (Mineralogical and Geochemical Alteration). Given projected funding constraints and project needs, David Vaniman anticipates that the number of drill cores and intervals within them to be analyzed will be further restricted to those most critical to the site mineralogical/geochemical model. This will restrict near-term studies to those cores of adequate depth that are within or closest to the potential repository boundaries. The increased sampling density within cores, however, will be maintained to ensure adequate data collection.

David Vaniman reported that sample preparation and analysis continued on the core materials from UE-25 UZ-16 and USW NRG-6. The mineralogy/petrology research staff forwarded sample requests to the Sample Overview Committee that will complete sampling of NRG-6 and provide initial samples of USW UZ-14. He projects that studies for FY 1994 will link the data to be collected from these three cores and allow for additional analysis of other planned cores. Research is projected in the following areas: mineralogic evidence of unsaturated-zone transport, applications to waste retardation, and development of site mineralogic data for regions proximal to but beyond the extent of ESF workings.

The Technical & Management Support Services (T&MSS) staff worked with CRWMS M&O and RSN to determine the need for the 138kV circuit switcher and the 138kV powerline from the Canyon Substation to the ESF North Portal. Recommendations are to be presented to DOE next week.

The USGS tectonics staff conducted field work to complete trench logging at SCR-T2 along the Stagecoach Road fault. Data from the trench logs will be used to determine slip rates, recurrence intervals, and displacement amounts and ages. The data is important for characterization of the seismic hazard at YM.

Tectonics staff also continued field work to evaluate exposures of the Paintbrush fault along the west side of Busted Butte. Mapping of Exposure 4 is near completion, and mapping commenced on Exposures 2 and 3. The exposures allow characterization of the history of fault movement over the last 750,000 years. This data is important for estimating the seismic hazard at YM.

Unsaturated and saturated zone personnel are setting a pump to begin conducting two to three short-term (one day) and one long-term (five day) hydraulic tests in UZ-14. Water levels in nearby boreholes will be monitored and periodic water samples will be collected through the pumping periods.

The USGS hydrology staff met with REECO and RSN staff to discuss the plan for sealing off the water producing zones in UZ-14 following hydraulic testing and water chemistry sampling. The plan is to continue drilling through the unsaturated zone to the regional water table.

Unsaturated zone staff completed zero offset and walk-away VSP surveys at UZ-16. A radial distance of 4,000 feet was determined to be the probable maximum distance for VSP offsets.

IV. PUBLIC OUTREACH AND INSTITUTIONAL ACTIVITIES

Richard Arnold, a consultant, gave a Native American Indian cultural presentation to 100 Girl Scouts at Mt. Charleston, Nevada, on August 9, 1993.

David Merritt, T&MSS, gave a geology presentation to 180 children at the YMCA in Las Vegas on August 10, 1993.

Paul Standish, T&MSS, provided an update on the new work at YM to 40 members of the Air Waste Management Association on August 11, 1993, in Las Vegas. Also, he gave a general YMP overview with new work status to eight patients of Charter Hospital on August 13, 1993, in Las Vegas.

Carl Gertz provided an update on the YMP to 200 attendees of the Second International New Avenues in Risk and Crisis Management Conference in Las Vegas on August 12, 1993.

A tour to YM was conducted for Lake Barrett, Acting Director, OCRWM, on August 11, 1993. Another tour was conducted on August 12, 1993, for a representative of the State of Minnesota Department of Public Service Commission.

Michael Pitterle, T&MSS, gave a general YMP overview with emphasis on geology to 40 members of the 4-H T.E.C. on August 12, 1993, in Las Vegas.

Institutional and External Affairs (IEA) staff completed a seven-minute feature video entitled, "Demonstration of Water Movement Through Different Kinds of Rock." The video features Dr. Alan Flint, USGS, of the Hydrologic Research Facility, and is intended to support YM tours when Alan Flint is not available for laboratory demonstrations.

The IEA staff also created newspaper announcements for the upcoming Discovery Day activities to be held at the Pahrump Yucca Mountain Information Office (YMIO) on August 28, 1993, and at the Beatty YMIO on September 26, 1993.

Staff from OCRWM, YMPO, and IEA conducted a Workshop on Developing a Consultative Process for stakeholders and the public in Las Vegas on August 10, 1993. The IEA staff attended the Lincoln County/City Joint Impact Alleviation meeting in Caliente, Nevada, on August 11, 1993.

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>Stakeholders Meetings</u>			

No significant meetings to report.

AUG 20 1993

Lake H. Barrett

-10-

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
B. <u>DOE/Headquarters Meetings</u>			
Wednesday, September 29 (televideo)	OCRWM Director's Program Review Meeting	Washington, DC	L. Smith/ C. Gertz
C. <u>CRWMS M&O/DOE Meetings</u>			
Wednesday, August 25 (televideo)	CRWMS M&O Program Management Review	Vienna, VA	L. Smith/ C. Gertz
Tuesday, August 31	YMPO Monthly Management Meeting	Las Vegas, NV	C. Gertz
D. <u>Internal and DOE/Nevada Operations Office (NV) Meetings</u>			
Wednesday, August 18	NV Managers Program Review	Las Vegas, NV	C. Gertz
Wednesday- Friday, September 22-24	YMPO Management Off-site	TBD	C. Gertz
E. <u>NRC Interactions</u>			
Tuesday, August 24	Technical Exchange - Substantially Complete Containment & Waste Package/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

AUG 20 1993

Lake H. Barrett

-11-

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
F. <u>Nuclear Waste Technical Review Board (NWTBR) Interactions</u>			
Tuesday-Friday, October 19-22	NWTBR Full Board Meeting (P)	Las Vegas, NV	J. Cooper
Monday-Tuesday, November 1-2	NWTBR Joint T&S/EBS Panel Workshop (P)	TBD	J. Cooper
Monday-Wednesday, January 10-12, 1994	NWTBR Full Board Meeting (P)	Arlington, VA	J. Cooper
January or February 1994	NWTBR - SG&G Panel (P)	TBD	J. Cooper
Monday-Wednesday, April 11-13, 1994	NWTBR Full Board Meeting (P)	Reno, NV	J. Cooper
Monday-Wednesday, July 11-13, 1994	NWTBR Full Board Meeting (P) (Tentative)	Denver, CO	J. Cooper
Wednesday-Friday, October 12-14 1994	NWTBR Full Board Meeting (P) (Tentative)	Las Vegas, NV	J. Cooper
G. <u>Advisory Committee on Nuclear Waste (ACNW) Interactions</u>			
Wednesday-Thursday, September 29-30	ACNW 56th Meeting (P)	TBD	A. Gil
Wednesday-Thursday, October 27-28	ACNW 57th Meeting (P)	Las Vegas, NV	A. Gil
Monday-Tuesday, November 22-23	ACNW 58th Meeting (P)	TBD	A. Gil
Wednesday-Thursday, December 15-16	ACNW 59th Meeting (P)	TBD	A. Gil

Lake H. Barrett

-12-

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
H. <u>National Academy of Sciences (NAS) Interactions</u>			
Thursday-Friday, August 26-27	NAS Committee on YM Standards-Alternative Formulations of a Risk-Based Standard (P)	Las Vegas, NV	S. Jones
Tuesday-Wednesday, November 9-10	NAS Committee on YM Standards (P)	TBD	S. Jones
Thursday-Friday, December 16-17	NAS Committee on YM Standards (P)	TBD	S. Jones
Monday-Tuesday, February 7-8, 1994	NAS Committee on YM Standards (P)	TBD	S. Jones
Thursday-Friday, April 28-29, 1994	NAS Committee on YM Standards (P)	TBD	S. Jones

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u>			
Tuesday, August 17	1993 American Institute of Chemical Engineers Summer National Meeting--When Things Began to Move at YM	Seattle, WA	J. Peck
Tuesday, August 17	ANEC Pretour--General Overview, "Policy, Progress & Politics"	Las Vegas, NV	C. Gertz
Thursday, August 19	Second International Mixed Waste Symposium --When Things Began to Move at YM	Baltimore, MD	C. Gertz
Friday, August 20	Loyal Order of the Moose	Pahrump, NV	K. Beall
Tuesday, August 24	YM Lecture Series (P)	Las Vegas, NV	D. Rakestraw K. Rautenstrauch
Thursday, August 26	Pretour, NTS tour for Congressman John T. Myers & staff, Energy & Water Development Appropriations Subcommittee--General Overview, "Policy, Progress & Politics"	Las Vegas, NV	C. Gertz

AUG 20 1993

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. State and Public Interactions (Continued)			
Thursday, August 26	YM Lecture Series (P)	Beatty, NV	D. Rakestraw K. Rautenstrauch
Saturday, August 28	Discovery Day (P)	Pahrump, NV	Various Speakers
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	Argonne, IL	C. Gertz
Wednesday, September 8	Radioactive Waste Management Conference (WERC)	Albuquerque, NM	C. Gertz
Friday, September 10	Public Gas Service Gas Company	New Brunswick, NJ	C. Gertz
Monday, September 13	Basset Book Shop	Las Vegas, NV	R. Arnold
Tuesday, September 21	Pretour, Western Legislative Conference	Las Vegas, NV	A. Robison
Sunday, September 26	YM Lecture Series (P)	Pahrump, NV	M. Griffin
Sunday, September 26	Children's Discovery Museum	Las Vegas, NV	R. Arnold
Sunday, September 26	Discovery Day (P)	Beatty, NV	Various Speakers
Monday, September 27	1993 I&EC Division Symposium	Atlanta, GA	TBD
Tuesday, September 28	Pretour, Entergy Energy Corporation	Las Vegas, NV	J. Peck
Tuesday, September 28	Pretour, Southern Nevada Chevron Retirees Association	Las Vegas, NV	J. Peck
Tuesday, September 28	YM Lecture Series (P)	Las Vegas, NV	M. Rose
Thursday, September 30	Pretour, League of Women Voters	Las Vegas, NV	B. Reilly J. Younker

AUG 20 1993

Lake H. Barrett

-14-

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions (Continued)</u>			
Friday, October 1	Pretour, Chubu Electric Power, Japan & Radioactive Waste Management Center, Japan	Las Vegas, NV	TBD
Tuesday, October 5	Sun City Residents	Las Vegas, NV	TBD
Tuesday, October 19	Community College of Southern Nevada	Las Vegas, NV	G. Fasano
Thursday, November 4	Discover Southern Nevada	Las Vegas, NV	TBD
Monday, November 15	American Nuclear Society (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>	
J. <u>Exhibits Scheduled</u>			
Friday-Sunday, August 13-15	Eureka County Fair	Eureka, NV	
Saturday, August 21	Public Open House (P)	Yucca Mountain, NV	
Wednesday-Sunday, August 25-29	Nevada State Fair (P)	Reno, NV	
Thursday-Monday, September 2-6	Tri-County Fair (P)	Inyo, CA	
Friday-Monday, September 3-6	Elko County Fair (P)	Elko, NV	
Wednesday-Friday, September 15-17	Nevada League of Cities	Las Vegas, NV	
Friday-Sunday, September 17-19	Harvest Day Festival (P)	Pahrump, NV	

AUG 20 1993

Lake H. Barrett

-15-

<u>Date</u>	<u>Event</u>	<u>Location</u>
J. Exhibits Scheduled (Continued)		
Sunday- Wednesday, September 19-22	American Society for Quality	Palm Springs, CA
Saturday, September 25	Public Open House (P)	Yucca Mountain, NV
Wednesday- Saturday, September 29- October 2	Nevada Library Association	Elko, NV
Friday- Sunday, October 1-10	Jaycee State Fair (P)	Las Vegas, NV
Wednesday- Friday, October 13-15	NACO	Pahrump, NV
Saturday, October 23	Public Open House (P)	Yucca Mountain, NV
Saturday, November 6	Boy Scouts Expo	Las Vegas, NV
Sunday- Wednesday, November 14-17	ANS	San Francisco, CA
Saturday, November 17	Public Open House (P)	Yucca Mountain, NV
Saturday, December 18	Public Open House (P)	Yucca Mountain, NV
<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. Tours Scheduled		
Tuesday, August 17	ANEC	TBD
Tuesday, August 17	CRWMS M&O Interns	R. Cameron
Saturday, August 21	Public Open House (P)	Various Escorts
Monday, August 23	Luther Carter, NAS-publications	S. Williams
Tuesday, August 24	BBC Television Features	S. Williams

AUG 20 1993

Lake H. Barrett

-16-

<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u> (Continued)		
Friday, September 10	Nuclear Programs - China	TBD
Monday, September 13	Senior Tripsters	TBD
Thursday, September 16	Edison Electric Institute High-Level Waste Working Group	TBD
Friday, September 17	Lincoln County School Board	C. Binzer B. Bush
Saturday, September 18	Nevada League of Cities	C. Binzer
Monday, September 20	Waste Package Development Workshop	R. Fish
Tuesday, September 21	Western Legislative Conference	D. Bradford
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 and Radioactive Waste Management Center, Japan	TBD
Tuesday, October 12	Sun City Senior Citizens	TBD
Thursday, October 14	NACO	C. Binzer
Tuesday, October 19	National Association of Regulatory Utility Commissioners	TBD
Wednesday, October 20	Wildland Shrub and Arid Land Restoration Symposium	K. Ostler

AUG 20 1993

Lake H. Barrett

-17-

<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u> (Continued)		
Saturday, October 23	Public Open House (P)	Various Escorts
Wednesday, November 17	Public Open House (P)	Various Escorts
Tuesday, November 23	Sun City B'nai Brith	TBD
Monday, November 29	NAS Tunnel Technology Committee	TBD
Saturday, December 18	Public Open House (P)	Various Escorts

YMP:RVB-5681


Carl P. Gertz
Project Manager

Lake H. Barrett

-16-

<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u> (Continued)		
Saturday, December 18	Public Open House (P)	Various Escorts

for 
 Carl P. Gertz
 Project Manager

YMP:RVB-5627

cc:

H. H. Brandt, HQ (RW-13) FORS
 J. C. Bresee, HQ (RW-10) FORS
 Samuel Rousso, HQ (RW-2) FORS
 S. J. Brocoum, HQ (RW-22) FORS
 B. A. Cerny, HQ (RW-12) FORS
 M. A. Ferguson, HQ (RW-5.1) FORS
 J. D. Saltzman, 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
 Samuel Rousso, HQ (RW-10) FORS
 J. D. Saltzman, HQ (RW-5) FORS
 J. P. Roberts, HQ (RW-33) 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
 Eureka County Board of Commissioners, 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



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

AUG 18 1993

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

OFFICE OF GEOLOGIC DISPOSAL WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
AUGUST 6, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

Site Characterization Activities

The 90 percent review for Design Package 1B will continue. Comment resolution will begin on Design Package 1B and continue on Design Package 2A.

Construction will continue in the Starter Tunnel, including bench excavation, installation of the lattice girder legs, placement of shotcrete, and installation of cement grouted pattern bolts.

Testing and sampling of water will continue at UZ-14; two daily drilling shifts began on July 26, 1993. Drilling at NRG-2B will continue. Support installation, excavation, and mapping will continue in the Exploratory Studies Facility (ESF). Additional geophysics testing is scheduled for next week at UZ-16. Trenching is tentatively scheduled for next week at Solitario Canyon.

Carl Gertz, Project Manager, will give an update on the Yucca Mountain Site Characterization Project (YMP) to 200 attendees of the Second International New Avenues in Risk and Crisis Management Conference in Las Vegas, Nevada, on August 12, 1993.

Staff from the Office of Civilian Radioactive Waste Management (OCRWM), Yucca Mountain Site Characterization Project Office (YMPO), and International and External Affairs (IEA) will conduct a Workshop on Developing a Consultative Process for stakeholders and the public in Las Vegas on August 10, 1993. The IEA staff will also attend the Lincoln County/City Joint Impact Alleviation meeting in Caliente, Nevada, on August 11, 1993.

II. CRITICAL ITEM STATUS - YMP

A. Site Characterization Activities

ESF

Construction

The underground construction subcontract received the U.S. Department of Energy (DOE) approval; the contract should be signed on August 9, 1993.

Excavation of the bench section of the Starter Tunnel began on July 31, 1993. As of August 6, 1993, the bench face was at 00+13.4 meters (00+44 feet). Construction is continuing on the stormwater diversion channel around the North Portal area.

AUG 18 1993

On Job Package (JP) 92-20, the installation of shotcrete continues.

Geologic mapping, sampling, and photography are completed to approximate station 0+40.

The following milestone represents the near-term plan for ESF activities:

Complete 60 meters of Tunnel Boring Machine Starter Tunnel	September 22, 1993
---	--------------------

Design

The 90 percent design review of Package 1B began on August 2, 1993. Comment resolution is scheduled to begin on August 11, 1993.

Comment resolution meetings were held for Package 2A 90 percent design review. Resolution of comments will continue.

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.

Surface-Based Testing Activities

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Current Core Depth 8/6/93</u>	<u>Current Ream Depth 8/6/93</u>	<u>Planned Total Depth</u>
NRG-2B	107.6 feet	104.3 feet	315 feet
UZ-14	1,282 feet	1,274 feet	2,000 feet

The job authorization for JP 93-10, Engineered Barrier-Large Block Experiment, has been signed off. Mobilization was begun to conduct the experiment.

Archeological digging continues at Bear Mountain. The monitoring of desert tortoises also continues.

On NRG-2B, drilling began at noon on July 30, 1993. The hole is in the Ranier Mesa member of the Timber Mountain Tuff.

On UZ-14, the bottom of the hole is in the Topopah Spring - basal vitrophyre unit. The most recent deviation survey was taken at 1,250 feet and showed 1 degree 20 minutes deviation from vertical. Water was encountered at 1,256.6 feet on July 30, 1993. Drilling has proceeded carefully to accommodate testing and sampling of the water. The most recent water level (taken at the end of drawdown/recovery testing) was 1,249.63 feet at 8:30 p.m. on August 5, 1993.

On SD-12, environmental clearance work is continuing on the access road. Awaiting a JP.

Sample Management Facility (SMF)

The Core Party was conducted all week at the SMF in conjunction with the Sample Overview Committee meeting held on August 4, 1993.

Lake H. Barrett

-3-

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

Performed geophysical logging activities on USW UZ-16. Ran AACT and NPLT/GRA geophysical logging tools, and conducted VSP and Seismic Check Shots. Operations ran 24 hours a day from August 2-6, 1993.

Continued to provide monitoring and oversight of prototype drilling tool development activities currently being conducted at Colorado School of Mines.

Removed 39 specimens from core samples for various analyses performed by Principal Investigators.

Continued Schmidt Hammer testing on NRG boreholes.

Accepted into the SMF 28 water samples collected by USGS at USW UZ-14 and 12 ESF tunnel samples collected for Los Alamos National Laboratory (Los Alamos).

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 Perched water testing
8.3.1.2.2.4	Characterization of YM Percolation in UZ-ESF Investigation	Perched water

SCP ACTIVITY	TITLE	COMMENTS
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

Conducted four environmental compliance surveillances at the Yucca Mountain (YM) site to ensure compliance with permit and programmatic requirements.

Initiated training on safety guidelines being published by the Center for Disease Control (CDC) for handling rodents. Arrangements are being made with CDC for blood samples to be taken of small mammal species at YM to determine if any are carriers of hanta virus antibodies.

Large Block Test

Bids were received for the loading frame.

Regulatory Interactions

Site Characterization Progress Report (PR)

The PR 8 was held up in the offices of General Counsel and the Secretary. The Secretary is expected to approve the document during the week of August 9, 1993. The revised distribution date for PR 8 is now August 27, 1993.

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

In preparation for the upcoming review of Revision 3 of the MGDS AO, a letter describing the review process and transmitting copies of the U.S. Nuclear Regulatory Commission's (NRC) Format and Content Guide for License Application will be sent to the participants. The participant review is scheduled to begin on August 17, 1993.

Issue Resolution

The Issue Resolution Steering Group will be meeting on August 18, 1993; the meeting will be a videoconference between YMPO and DOE/Headquarters (HQ). Agenda items include the status of current issues and an analysis of potential future issues.

Technical Analysis

Performance Assessment (PA) staff completed a preliminary Waste Package (WP)/Engineered Barrier System (EBS) file for the Regulatory Integration Program to be used in the Total System PA-II. The file

includes temperature-dependent WP corrosion rates, spent fuel and high-level defense waste dissolution rates, and solubilities; saturation-and flux-dependent corrosion rates and radionuclide diffusion from the WP; and correlation of solubilities.

The PA staff participated in the August 5-6, 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.

Previous PA analyses discussed in the ESF Design Requirements and elsewhere are being reviewed to help identify longer-term, generic PA studies to support fiscal year (FY) 1994 project goals.

Los Alamos delivered Milestone 3352, "Distribution of Potentially Hazardous Phases in the Subsurface at Yucca Mountain," to YMPO on August 5, 1993.

The PA staff attended the INTERVAL modeling results meeting in Seattle, Washington, August 3-4, 1993. The meeting participants presented the model predictions for the moisture content in the UZ-16 well drilled at the potential site at YM. The predictions were compared, for the first time, with the UZ-16 core moisture measured results made available at the meeting. A total of five predicted moisture distributions were submitted before the measured results were released. The final results and comparisons with the released measured data will be presented at the International INTERVAL meeting in Sweden August 30 - September 4, 1993.

Site Characterization Plan/Study Plan (SP) Status

No new SPs were approved by YMPO this week.

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO	38	0
In Screening Review	0	0
In YMPO Review	2	1
Awaiting Comment Resolution	4	4
In Verification Audit	5	0
Awaiting YMPO Approval	1	4
Awaiting Submission to NRC	0	0
Awaiting NRC Phase 1 Review	10	0
Accepted by NRC	44	5
Totals	104	14
Total Submitted to NRC	54	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

Published Revision 5 of the FY 1993 Cost/Schedule Baseline document.

Issued final draft of the Planning and Control System (PACS) Participant Work Station (PWS) Deliverables Software Requirements Specification.

Released Software Version 4.0.3 of the PACS PWS to the participants. Enhancements included a report view option after specifying reporting criteria and the capability to print or exit after viewing.

C. Quality Assurance Implementation

YMPO Audit, YMP-93-15, will be held the week of August 9, 1993.

YMPO Surveillance 93-037, Flowdown of Requirements, will be held at the YM site August 11-17, 1993.

Surveillance 93-038, Processing and Disposition of Nonconformance Reports, for Reynolds Electrical & Engineering Co., Inc., and Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O), will be held at the YM site August 9-13, 1993.

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

The analysis/evaluation packages for all natural barriers were approved by YMPO.

A revision to the Q-List and the initial issue of the MC-List were approved by YMPO.

III. GENERAL INFORMATION ITEMS

Regarding Work Breakdown Structure 1.2.5.4.2 (Waste Package Performance Assessment), information on the source term was presented to SNL for use in TSPA 93. As part of this effort, Near Field and PA staff modeled an important near-field hydrological process, localized water penetration beyond a boiling front, through a dried-out zone, down to the level of a repository. At random locations, this flux could wet some waste packages. In order for penetration to happen at some location, it is

AUG 18 1993

Lake H. Barrett

-7-

necessary that the localized water flux be greater than the amount of water that can be evaporated by the heat flux from the repository. This heat flux is assumed to be essentially uniform, whereas water fluxes are known to exhibit spatial heterogeneity. Using the lognormal distribution to characterize this heterogeneity (as is suggested in the literature), numerical results for the fraction of waste packages that get wet under the assumptions of 57 and 114 kilowatts per acre initial area power density, both at the center and edge of the repository have been derived. For representative assumed input values, the fraction of waste packages in the repository center zone that get wet is on the order of a few per thousand for the first 50 to 100 years. The fraction then drops by about an order of magnitude in the 57 kW/acre case. The fraction drops by about three orders of magnitude in the 114 kW/acre case, to an expected value well below one waste package in the whole repository center zone after a few hundred years.

Los Alamos submitted Level III Milestone 3194, Batch Sorption Experiments with Lithium, to YMPO this week.

On August 3, 1993, Julie Canepa, Los Alamos Technical Project Officer, presented an overview of the YMP to Yuri Kostenko, Minister for Environmental Protection of the Ukrainian Ministry of the Environment.

Bruce Crowe of Los Alamos met with George Thompson of Stanford University to discuss integrating volcanism studies with the geophysics program at Stanford. Bruce Crowe also met with the geophysical staff of USGS in Menlo Park, California; they identified the seismic reflection/refraction experiment as a key element for integrating volcanism studies with the geophysics and tectonic programs.

Bruce Crowe and other members of the Los Alamos volcanism staff held a planning session with representatives of the CRWMS M&O and Geomatrix Inc. to discuss application of expert opinion analyses to volcanism studies.

Los Alamos staff prepared and analyzed samples of the core materials from UE-25 UZ-16 and USW NRG-6. Sample preparation was begun for splits of the five samples that will be used in microautoradiography studies; powdered samples will be analyzed by quantitative x-ray diffraction to provide bulk mineral abundance data.

Field Operations Department staff worked on preparation of a response to the emergency management appraisal. They also prepared Occurrence Reporting and Processing System authority file information forms, which the Site Manager signed, and submitted applications to EG&G Idaho.

Staff from the Safety and Health Compliance Department reviewed Building 4522 ventilation and fume exhaust system and recommended a system to maintain appropriate conditions. They performed five surveillances: ESF (twice), Fran Ridge pit, NRG-6 pad, and NRG-2B. Also, they wrote an Interim Change Notice for Implementing Line Procedure 1.4, DOE "Organization," to incorporate duties of the safety and health officer; completed drafting YMP Safety and Health Plan revisions; and began drafting a white paper on DOE Order 5480.29.

Review of NRC-proposed revisions to 10 CFR Part 60 was initiated; comments are to be provided to RW-30 by September 1, 1993. Also, review was initiated of RCRA regulations relevant to geologic disposal.

AUG 18 1993

Lake H. Barrett

-8-

Preparation of support materials for the OCRWM Management meeting to be held on August 23, 1993, was initiated.

The staff revised the framework for considerations in developing U.S. Environmental Protection Agency standards and prepared draft descriptive text to accompany transmittal to the National Academy of Sciences (NAS).

IV. PUBLIC OUTREACH AND INSTITUTIONAL ACTIVITIES

Carl Gertz gave a new work update to 65 participants of the U.S. Council on Energy Awareness (USCEA) Energy Information Centers Workshop on August 2, 1993, in Chicago, Illinois. A. C. Robison, YMPO, gave a new work update to 50 science teachers and managers of radiation-monitored stations in Brianhead, Utah, on August 6, 1993.

A tour to YM was conducted on August 6, 1993, for 35 guests from the Military Order of Laos. April Gil, YMPO, gave a pretour briefing to 25 area station managers from Rocky Flats on August 4, 1993, before their tour of the Nevada Test Site.

Various speakers participated in the YMCA's Desert Explorers Camp, which was held at the Las Vegas Yucca Mountain Information Office for members of the YMCA, ages 10-12, August 2-6, 1993.

Richard Arnold, a consultant, gave a Native American Indian cultural presentation to 100 Girl Scouts at Foxtail Camp at Mt. Charleston, Nevada, on August 2, 1993.

Kathleen Grassmeier, YMPO, gave a general YMP overview to 50 members of the Transportation Institutional Task Force in Albuquerque, New Mexico, on August 5, 1993. Personnel from IEA staffed a YMP technical exhibit at this conference.

J. Russell Dyer, YMPO, provided a general YMP overview to 70 members of the Navy Seebies Construction Battalion in Las Vegas on August 7, 1993.

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>Stakeholders Meetings</u>			
Tuesday, August 10	Stakeholders Workshop	Las Vegas, NV	L. Smith

AUG 18 1993

Lake H. Barrett

-9-

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
B. <u>DOE/HQ Meetings</u>			
Thursday, September 16	OCRWM Program Management Meeting	Washington, DC	L. Smith/ C. Gertz
C. <u>CRWMS M&O/DOE Meetings</u>			
Wednesday, August 25	CRWMS M&O Program Management Review	Vienna, VA	L. Smith/ C. Gertz
Tuesday, August 31	YMPO Monthly Management Meeting	Las Vegas, NV	C. Gertz
D. <u>Internal and DOE/Nevada Operations Office (NV) Meetings</u>			
Wednesday, August 18	NV Managers Monthly Program Review	Las Vegas, NV	C. Gertz
E. <u>NRC Interactions</u>			
Tuesday, August 24	Technical Exchange - Substantially Complete Containment & WP EBS Design Concepts (P)	Washington, DC	T. Bjerstedt
Wednesday, October 13	Technical Exchange - Radioactive Migration in the UZ (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
F. <u>Nuclear Waste Technical Review Board (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

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
F. <u>NWTRB Interactions (Continued)</u>			
Monday- Wednesday, January 10-12, 1994	NWTRB Full Board Meeting (P)	Arlington, VA	J. Cooper
January or February 1994	NWTRB - SG&G Panel	TBD	J. Cooper
Monday- Wednesday, April 11-13, 1994	NWTRB Full Board Meeting (P)	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
G. <u>Advisory Committee on Nuclear Waste (ACNW) Interactions</u>			
Wednesday- Thursday, September 29-30	ACNW 56th Meeting (P)	TBD	A. Gil
Wednesday- Thursday, October 27-28	ACNW 57th Meeting (P)	Las Vegas, NV	A. Gil
Monday- Tuesday, November 22-23	ACNW 58th Meeting (P)	TBD	A. Gil
Wednesday- Thursday, December 15-16	ACNW 59th Meeting (P)	TBD	A. Gil
H. <u>NAS Interactions</u>			
Thursday- Friday, August 26-27	NAS Committee on YM Standards- Alternative Formulations of a Risk-Based Standard (P)	Las Vegas, NV	S. Jones
Tuesday- Wednesday, November 9-10	NAS Committee on YM Standards	TBD	S. Jones

AUG 18 1993

Lake H. Barrett

-11-

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
H. <u>NAS Interactions (Continued)</u>			
Thursday-Friday, December 16-17	NAS Committee on YM Standards	TBD	S. Jones
Monday-Tuesday, February 7-8, 1994	NAS Committee on YM Standards	TBD	S. Jones
Thursday-Friday, April 28-29, 1994	NAS Committee on YM Standards	TBD	S. Jones

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u>			
Monday, August 9	Foxtail Girl Scouts Camp	Mt. Charleston, NV	R. Arnold
Tuesday, August 10	YMCA	Las Vegas, NV	D. Merritt
Wednesday, August 11	Air Waste Management Association	Las Vegas, NV	P. Standish
Thursday, August 12	Second International New Avenues in Risk and Crisis Management Conference	Las Vegas, NV	C. Gertz
Thursday, August 12	4-H T.E.C.	Las Vegas, NV	J. Peck
Friday, August 13	Charter Hospital	Las Vegas, NV	P. Standish
Tuesday, August 17	1993 American Institute of Chemical Engineers Summer National Meeting	Seattle, WA	J. Peck
Tuesday, August 17	Pretour, American Nuclear Energy Council (ANEC)	Las Vegas, NV	TBD
Thursday, August 19	Second International Mixed Waste Symposium	Baltimore, MD	C. Gertz
Friday, August 20	Loyal Order of the Moose	Pahrump, NV	K. Beall

AUG 18 1993

Lake H. Barrett

-12-

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Tuesday, August 24	YM Lecture Series (P)	Las Vegas, NV	D. Rakestraw K. Rautenstrauch
Thursday, August 26	YM Lecture Series (P)	Beatty, NV	D. Rakestraw K. Rautenstrauch
Saturday, August 28	Discovery Day (P)	Pahrump, NV	Various Speakers
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	Argonne, IL	C. Gertz
Wednesday, September 8	Radioactive Waste Management Conference (WERC)	Albuquerque, NM	C. Gertz
Friday, September 10	Public Gas Service Gas Company	New Brunswick, NJ	C. Gertz
Monday, September 13	Basset Book Shop	Las Vegas, NV	R. Arnold
Tuesday, September 21	Pretour, Western Legislative Conference	Las Vegas, NV	A. Robison
Sunday, September 26	YM Lecture Series (P)	Pahrump, NV	M. Griffin
Sunday, September 26	Children's Discovery Museum	Las Vegas, NV	R. Arnold
Sunday, September 26	Discovery Day (P)	Beatty, NV	Various Speakers
Monday, September 27	1993 I&EC Division Symposium	Atlanta, GA	TBD
Tuesday, September 28	Pretour, Entergy Energy Corporation	Las Vegas, NV	TBD
Tuesday, September 28	Pretour, Southern Nevada Chevron Retirees Association	Las Vegas, NV	TBD

AUG 18 1993

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Tuesday, September 28	YM Lecture Series (P)	Las Vegas, NV	M. Rose
Thursday, September 30	Pretour, League of Women Voters	Las Vegas, NV	TBD
Friday, October 1	Pretour, Chubu Electric Power, Japan & Radio- active Waste Management Center, Japan	Las Vegas, NV	TBD
Tuesday, October 5	Sun City Residents	Las Vegas, NV	TBD
Thursday, November 4	Discover Southern Nevada	Las Vegas, NV	TBD
Monday, November 15	American Nuclear Society (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>
J. <u>Exhibits Scheduled</u>		
Friday- Sunday, August 13-15	Eureka County Fair	Eureka, NV
Saturday, August 21	Public Open House (P)	Yucca Mountain, NV
Wednesday- Sunday, August 25-29	Nevada State Fair (P)	Reno, NV
Thursday- Monday, September 2-6	Tri-County Fair (P)	Inyo, CA
Friday- Monday, September 3-6	Elko County Fair (P)	Elko, NV

AUG 18 1993

<u>Date</u>	<u>Event</u>	<u>Location</u>
J. Exhibits Scheduled (Continued)		
Wednesday- Friday, September 15-17	Nevada League of Cities	Las Vegas, NV
Friday- Sunday, September 17-19	Harvest Day Festival (P)	Pahrump, NV
Sunday- Wednesday, September 19-22	American Society for Quality	Palm Springs, CA
Saturday, September 25	Public Open House (P)	Yucca Mountain, NV
Wednesday- Saturday, September 29- October 2	Nevada Library Association	Elko, NV
Friday- Sunday, October 1-10	Jaycee State Fair (P)	Las Vegas, NV
Wednesday- Friday, October 13-15	NACO	Pahrump, NV
Saturday, October 23	Public Open House (P)	Yucca Mountain, NV
Saturday, November 6	Boy Scouts Expo	Las Vegas, NV
Sunday- Wednesday, November 14-17	ANS	San Francisco, CA
Saturday, November 17	Public Open House (P)	Yucca Mountain, NV
Saturday, December 18	Public Open House (P)	Yucca Mountain, NV

<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. Tours Scheduled		
Tuesday, August 17	ANEC	TBD
Tuesday, August 17	CRWS M&O Interns	R. Cameron

AUG 18 1993

Lake H. Barrett

-15-

<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled (Continued)</u>		
Saturday, August 21	Public Open House (P)	Various Escorts
Monday, September 13	Senior Tripsters	TBD
Monday, September 20	WP Development Workshop	R. Fish
Tuesday, September 21	Western Legislative Conference	D. Bradford
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 and Radioactive Waste Management Center, Japan	TBD
Tuesday, October 12	Sun City Senior Citizens	TBD
Tuesday, October 19	National Association of Regulatory Utility Commissioners	TBD
Wednesday, October 20	Wildland Shrub and Arid Land Restoration Symposium	K. Ostler
Saturday, October 23	Public Open House (P)	Various Escorts
Wednesday, November 17	Public Open House (P)	Various Escorts
Monday, November 29	NAS Tunnel Technology Committee	TBD