



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

file

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TO: Joseph Holonich, Director, HLPD, M/S 4 H 3
FROM: Sr. On-Site Licensing Representatives' Office, Las Vegas
DATE: January 7, 1994
SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE
WEEK ENDING DECEMBER 17, 1993

Please find enclosed the above-referenced information. There is nothing requiring specific management attention.

cc: w/enc.: Charlotte Abrams, M/S 4 H 3
Anne Garcia, M/S 4 H 3

Enclosure as stated

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DEPARTMENT OF ENERGY
Office of Civilian Radioactive Waste Management
Office of Geologic Disposal
Yucca Mountain Site Characterization Project Office
P.O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.2
QA: N/A

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Daniel A. Dreyfus, Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS

OFFICE OF GEOLOGIC DISPOSAL WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
DECEMBER 17, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

Site Characterization Activities

Exploratory Studies Facility (ESF)

Design activities will continue on Package 1B with verification and submission of the drawings and specifications to the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) Change Control Board (CCB) for baselining. Design activities will continue on Package 2A with submittal of the drawings and specifications to the Yucca Mountain Site Characterization Project (YMP) CCB for baselining. The 90 percent design review for Packages 2B and 1C began December 13, 1993. The design review meeting is scheduled for January 5-7, 1994.

Begin shotcreting of the boxcut at the entrance of the starter tunnel.

Construction will continue on the 69kV power distribution system with continuation of trenching for duct banks of foundation work on the switchgear building on the pad.

Continue placement of bedding sand in the trench and installation of the pipe for the water line.

Surface-Based Testing (SBT)

Future activities include Boreholes NRG-2c, NRG-2d, and NRG-2e. The work program is ready for review and comment. Comments are due by December 29, 1993, with comment resolution scheduled for January 3, 1994.

Field testing activities will be suspended for the Christmas holidays beginning at close of business on December 17, 1993, and will resume on January 3, 1994.

II. CRITICAL ITEM STATUS - YMP

A. Site Characterization Activities

ESF

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Construction

On Job Package (JP) 92-20, ESF North Portal Pad and Facilities, application of fibercrete to the arch of the test alcove and pull-testing of pattern rock bolts in the starter tunnel continues. Excavation for electrical conduits and duct bank on the north portal pad continues, as well as laying of water line pipe. On December 20, 1993, application of shotcrete to the highwall in the box cut will begin.

Completed shotcreting of the test alcove from springline to springline over the entire length of the test alcove. The starter tunnel and test alcove will be closed to all personnel from December 18, 1993 to January 2, 1994. Completed pull testing of pattern bolts in the starter tunnel. The face of the test alcove is at 27.4 meters (00+90 feet), measured from the centerline of the starter tunnel, as of December 16, 1993.

Preparing boxcut at the entrance to the starter tunnel for shotcrete by installing additional welded wire fabric and washing down the walls.

Construction is continuing on the 69kV power distribution system with trenching for the duct banks on the pad. Electrical work, with the exception of trenching for the duct banks and work on the switchgear building structure, will cease until January 3, 1994.

Continued placement of bedding sand in the trench and installation of the pipe for the water line.

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

69kVA power available
at the North Portal

January 31, 1994

Design

Design activities continued on Packages 1B and 2A. Completed baselining of Package 1B Basis for Design by the CRWMS M&O CCB and Acceptance Review by the U.S. Department of Energy (DOE). Submitted Package 2A drawings and specifications for DOE Acceptance Review. Continuing design activities for Packages 1C, 2B, and 2C.

SBT

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Current Core Depth 12/17/93</u>	<u>Current Ream Depth 12/17/93</u>	<u>Total Planned Depth</u>
UZ-14	1,442.10 feet	1,421.6 feet	2,000 feet
NRG-7/7A	848.62 feet	302.1 feet	1,445 feet

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On NRG-7/7A, a directional deviation survey was conducted at 770 feet. This survey again confirms that the hole will not enter the planned ESF north ramp opening. Drilling Support staff collected and processed core and cuttings from 766.8 feet to 844.9 feet, as of 5 p.m. on December 16, 1993. The drilling is currently in the middle nonlithophysal zone of the Topopah Springs geologic member.

On UZ-14, installation of a packer at an approximate depth of 1,315 feet is in progress. The packer assembly required advancing the hole about an additional 10 feet prior to placement in the borehole.

On C-Hole Complex Multiple-Well Hydraulic Interference Testing, Phase I, testing continued in UE-25 c#3. A string of three packers was placed in UE-25 c#2. The packers in UE-25 c#3 are being removed for repairs.

On JP 94-3, NRG-2 Complex, an additional excavation (150 feet long, 45 feet wide, and 10 feet deep) was completed on December 15, 1993, to further evaluate the shallow Ranier Mesa. Additional excavation is planned at the bottom of the trench for an additional 20 feet of exposure. Berms are now being constructed.

Regarding trenching of the west side of Exile Hill, two temporary exploratory trenches were excavated along the NRT-1 alignment. The trenches were examined and the final configuration for Trench NRT-1 was then laid out; excavation is in progress.

For the Large Block Test, 17 instrumentation holes have been drilled in the test block of Topopah Spring welded tuff, which completes the drilling in the large block.

The Sample Management Facility shipped approximately 113 specimens from core samples for analysis by Principal Investigators (PI). The shipments were sent to the U.S. Geological Survey, Sandia National Laboratories, Los Alamos National Laboratory (Los Alamos), and the University of Nevada, Reno.

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

ECP 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

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SCP ACTIVITY	TITLE	COMMENTS
8.3.1.17.4.3	Quaternary Faulting within 100 km of Yucca Mountain, Nevada	Surface mapping
8.3.1.17.4.4	Quaternary Faulting in NE-Trending Fault Zones	Surface mapping
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
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 Safety and Health Programs

The Safety & Occupational Health staff performed three surveillances. Areas covered were UZ-16, NRG-7/7A, and Fran Ridge. They also coordinated arrangement for and began activities of Administrative Procedure 5.7 inspection of the Bank of America Center.

Five environmental compliance surveillances were conducted at the Yucca Mountain, Nevada, site ensuring compliance with permit and programmatic requirements.

Stabilization and seeding were completed at the ESF topsoil stockpile.

Air quality permit modifications were received from the Nevada Department of Environmental Protection clarifying the hours of operation for all permitted drillrigs at the Yucca Mountain site.

Regulatory Interactions

Advisory Committee on Nuclear Waste (ACNW) Interactions

The ACNW held its 59th meeting in Las Vegas on December 13, 1993. The committee heard presentations on the status of work on the YMP, including ESF testing and the Issue Resolution Initiative. The

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committee held a working group on Unsaturated Zone Studies on December 14, 1993, and took a site tour on December 15, 1993. The site tour included stops at the Fran Ridge heated block experiment site and the Hydrologic Research Facility.

The Technical Analysis Branch Chief presented a paper at the National Academy of Sciences (NAS) Committee on Yucca Mountain Standards meeting in Washington, D.C., on December 16, 1993. The title of the paper is "Overview of Considerations for Nominal Performance of a High-Level Nuclear Waste Repository."

Site Characterization Plan/Study Plan (SP) Status

One SP major revision was approved by the Yucca Mountain Site Characterization Project Office (YMPO): SP 8.3.1.2.2.8, Revision 1, "Fluid Flow in Unsaturated, Fractured Rock." Two SPs were submitted to YMPO: SP 8.3.4.2.4.1, "Characterization of the Effects of Man-Made Materials on Chemical and Mineralogical Changes in the Post-Emplacement Environment;" and SP 8.3.4.2.4.2, "Hydrologic Properties of the Near-Field Environment."

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO.....	36	0
In Screening Review	2	0
In YMPO Review	0	1
Awaiting Comment Resolution	4	2
In Verification Audit	5	1
Awaiting YMPO Approval	0	0
Awaiting Submission to the U.S. Nuclear Regulatory Commission (NRC).....	0	1
Awaiting NRC Initial Review	8	5
Accepted by NRC	49	5
Totals	<u>104</u>	<u>15</u>
Total Submitted to NRC	57	10

State of Nevada Comments Status:

Received Comments from the State of Nevada..... 25
Responses Transmitted to the State of Nevada 19

NRC Comments Status:

Received Comments from NRC

Responses Transmitted from DOE to NRC 24

B. Project Planning and Control

Received approval of the final System Description document from the Acting Project Manager, YMPO, and submitted the document to Document Control for distribution.

C. Quality Assurance Implementation

No significant activities to report.

III. GENERAL INFORMATION ITEMS

The staff participated in the following: the NAS 801 meeting on the technical bases for a standard applicable to Yucca Mountain in Washington, D.C., December 16-17, 1993; the NAS review of the Waste Isolation Pilot Plant technical activities in Washington, D.C., December 14-15, 1993; the ACNW meeting on SBT and ESF testing in Las Vegas on December 13, 1993; the Repository/Waste Package Design Integration Workshop in Albuquerque, New Mexico, on December 15, 1993; and the comment resolution meeting on Quality Assurance Procedure 3.1 reviews of System Requirements Documents in Vienna, Virginia.

Regarding Work Breakdown Structure 1.2.2.2.2 (Hydrologic Properties of the Waste Package Environment), Lawrence Livermore National Laboratory thermal-hydrological calculations focused on the impact of buoyant, gas-phase convection on reducing the duration of the boiling period, and bulk moisture movement in the unsaturated zone. The area-weighted boiling period duration (t_{bp}) for several above-boiling cases was calculated. The cooling effect that mountain-scale, buoyant, gas-phase convection has on t_{bp} increases with decreasing Areal Mass Loading. For example, the 110.5 MTU/acre, 40-darcy case has t_{bp} reduced by 29 percent relative to a 280 millidarcy case, while for the 83.4 and 55.3 MTU/acre cases, the reduction is 39 and 74 percent, respectively.

Los Alamos hosted a meeting to plan for the Saturated Zone Hydrology section of the February 1994 DOE Technical Program Review. Los Alamos and CRWMS M&O personnel met with Los Alamos PIs. The participants also discussed how Los Alamos' hydrology research fits into the Preliminary Hydrology Model (1996), the Interim Hydrology Model (1998), and the Final Hydrology Model (2000).

David Vaniman reported that Los Alamos mineralogy/petrology researchers obtained approximately 300 milligrams of pure stellerite (a fracture-lining zeolite) from UE-25 UZ-16 at a depth of 373 meters. The separation of this mineral will allow mineralogical and chemical studies of the environment of zeolite formation. Zeolites such as stellerite provide indications of fracture transport and deposition. Although small in volume and difficult to isolate, these minerals occupy critical surfaces in fractures that are likely to be important to transport in the unsaturated zone.

Three Los Alamos papers were presented at the Migration '93 meeting in Charleston, South Carolina. Steven Kung presented a paper titled, "The Effect of Organic Coatings on Radionuclide Sorption." David Clark presented a paper titled, "Carbon-13 NMR Kinetics and Ligand Exchange Dynamics of Actinyl(VI) Carbonate Complexes in Aqueous Solution." C. Drew Tait presented a paper titled, "Speciation of Neptunium(V) Carbonate as a Function of Temperature Using Absorption Spectroscopies." Ines Triay chaired the Colloid Migration session.

The Los Alamos report, "Preliminary Conceptual Model for Mineral Evolution in Yucca Mountain," (LA-12708-MS), by C. J. Duffy, was published. This model suggests that the mineral transformations observed in Yucca Mountain are primarily controlled by the activity of aqueous silica. The aqueous silica activity is controlled by the most soluble silica polymorph (opal-CT, cristobalite, or quartz) present at a particular location, and the rates of mineral transformations are controlled by the rate of evolution of the silica polymorphs toward the most stable polymorph, quartz.

Established environmental boundaries and staked out access road alignment for Rock Valley trench locations.

IV. PUBLIC OUTREACH AND INSTITUTIONAL ACTIVITIES

Tours to Yucca Mountain were conducted on December 13, 1993, for a guest from Edison Electric Institute; on December 15, 1993, for 40 guests in conjunction with the ACNW meeting; and on December 16, 1993, for 4 guests from Churchill County.

The YMP sponsored a Girl Scouts Geology Merit Badge Workshop at the Las Vegas Yucca Mountain Science Center on December 11, 1993. Forty Girl Scouts and ten adult leaders attended. The Girl Scouts learned about fossils and volcanoes to earn their merit badges.

Two educational presentations were given on December 14, 1993, in Las Vegas. These included a presentation on mineral resources to 300 students at K. O. Knudson Middle School and a presentation on mining to 75 students at Roy Martin Junior High School. Also, presentations were provided on Native American Culture to 100 students at the Pahrump Fifth and Sixth Grade Center, in Pahrump, Nevada, on December 15, 1993; and to 30 students at Mt. Charleston Elementary School, in Mt. Charleston, Nevada, on December 16, 1993. A presentation on volcanoes and earthquakes was given to 120 students at Pahrump Junior High School in Pahrump on December 17, 1993.

A presentation was given on careers as an engineer on the YMP to 35 students at Green Valley High School in Henderson, Nevada, on December 16, 1993.

Presented a YMP exhibit at Migration '93 in Charleston, South Carolina, December 13-17, 1993.

The Institutional and External Affairs (IEA) staff produced and distributed a 1993 Year End Review video.

The IEA staff attended the Clark County Steering Committee Meeting on December 16, 1993, and the City of Las Vegas Yucca Mountain Nuclear Repository Committee meeting on December 17, 1993, in Las Vegas.

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The IEA staff attended JASON committee meetings on December 14 and December 17, 1993, at the Clark County Partnership Office in Las Vegas. Also, YMP staff and the DOE Nevada Operations Office (NV) were recognized for their contributions to the JASON Project at the Clark County School Board meeting on December 14, 1993.

The IEA staff attended a planning session on December 15, 1993, in Las Vegas, with Dr. Richard Powell and three Clark County School District teachers for the Office of Civilian Radioactive Waste Management Teacher Workshop. The workshop is held in conjunction with the International High-Level Radioactive Waste Management Conference and is scheduled for May 21 and May 28, 1994.

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 Jamie Elliott at (702) 794-7496, 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>			
Thursday-Friday, February 10-11, 1994	Affected Units of Government	Las Vegas, NV	A. Robison
B. <u>DOE/Headquarters Meetings</u>			
No significant meetings to report.			
C. <u>CRWMS M&O/DOE Meetings</u>			
Tuesday, December 21	CRWMS M&O Program Management Review	Video- conference	R. Nelson
D. <u>Internal and DOE/NV Meetings</u>			
No significant meetings to report.			
E. <u>NRC Interactions</u>			
Tuesday - Wednesday, February 1-2, 1994	NRC Technical Exchange and Site Visit on Erosion TR Related Topics	Las Vegas, NV	T. Bjerstedt
Wednesday, February 9, 1994	NRC Technical Meeting on ESF Status	Rockville, MD	T. Bjerstedt

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>NRC Interactions (Continued)</u>			
Tuesday - Wednesday, March 15-16, 1994	NRC Technical Exchange on Status on Work Relevant to Characterization of Saturated and Unsaturated Flow	Denver, CO	T. Bjerstedt
Tuesday - Thursday, May 3-5, 1994	NRC Site Visit: Surface-Based/ Underground Site Characterization Activities	Yucca Mountain, NV	T. Bjerstedt
Tuesday, May 17, 1994	NRC Meeting on Interactions Scheduling	TBD	T. Bjerstedt
Thursday, May 26, 1994	NRC Technical Meeting on ESF Status and Update	Rockville, MD	T. Bjerstedt
Monday - Tuesday, June 20-21, 1994	NRC Technical Exchange on Total System Performance Assessment	Rockville, MD	T. Bjerstedt
Tuesday - Thursday, July 26-28, 1994	NRC Interactions: Topic TBD	TBD	T. Bjerstedt
Tuesday - Thursday, August 23-25, 1994	NRC Interactions: Topic TBD	TBD	T. Bjerstedt
Tuesday - Thursday, September 13-15, 1994	NRC Interactions: Topic TBD	TBD	T. Bjerstedt
Tuesday - Thursday, October 25-27, 1994	NRC Interactions: Topic TBD	TBD	T. Bjerstedt
Monday - Wednesday, November 7-9, 1994	NRC Interactions: Topic TBD	TBD	T. Bjerstedt

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>NRC Interactions (Continued)</u>			
Tuesday - Thursday, December 6-8, 1994	NRC Interactions: Topic TBD	TBD	T. Bjerstedt
F. <u>Nuclear Waste Technical Review Board (NWTRB) Interactions</u>			
Tuesday- Wednesday, January 11-12, 1994	NWTRB Full Board Meeting (P)	Arlington, VA	J. Nesbit
Tuesday- Wednesday, March 8-9, 1994	NWTRB - SG&G Panel (P) (Tentative)	TBD	J. Nesbit
Monday- Wednesday, April 11-13, 1994	NWTRB Full Board Meeting (P)	Reno, NV	J. Nesbit
Monday- Wednesday, July 11-13, 1994	NWTRB Full Board Meeting (P) (Tentative)	Denver, CO	J. Nesbit
Wednesday- Friday, October 12-14, 1994	NWTRB Full Board Meeting (P) (Tentative)	Las Vegas, NV	J. Nesbit
G. <u>ACNW Interactions</u>			
No significant meetings to report.			
H. <u>NAS Interactions</u>			
Monday- Tuesday, February 7-8, 1994	NAS Committee on Yucca Mountain Standards (P)	TBD	S. Jones
Thursday- Friday, April 28-29, 1994	NAS Committee on Yucca Mountain Standards (P)	TBD	S. Jones

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u>			
Friday, December 31	Widowed Persons Group - General Overview	Las Vegas, NV	J. Peck
Tuesday, January 4, 1994	Elaine Wynn Elementary School - Native American Culture	Las Vegas, NV	R. Arnold
Friday, January 7, 1994	National Park Service - Native American Culture	Lake Mead, NV	R. Arnold
Wednesday, January 12, 1994	Red Rock Visitors' Center - Native American Culture	Red Rock, NV	R. Arnold
Wednesday, January 12, 1994	Sierra Club - General Overview	Las Vegas, NV	J. Peck
Friday, January 14, 1994	Fay Herron Elementary School - "Gee Whiz Science"	Las Vegas, NV	J. Blink
Friday, January 14, 1994	G. C. Wallace Engineers & Architects - General Overview	Las Vegas, NV	J. Peck
Saturday, January 15, 1994	Amargosa Valley Girl and Boy Scouts - Geology Workshop	Las Vegas, NV	TBD
Tuesday, January 18, 1994	Roy Martin Junior High School - Botany	Las Vegas, NV	K. Wirtz
Tuesday, January 18, 1994	4-H T.E.C. - Native American Culture	Las Vegas, NV	R. Arnold
Wednesday, January 19, 1994	Roy Martin Junior High School - Native American Culture	Las Vegas, NV	R. Arnold
Wednesday, January 19, 1994	George Harris Elementary School - Yucca Mountain Johnny	Las Vegas, NV	J. Hartley

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Wednesday, January 19, 1994	Elko County Commissioners - General Overview/ Transportation	Elko, NV	B. Bush P. Standish
Thursday, January 20, 1994	4-H T.E.C. - Native American Culture	Las Vegas, NV	R. Arnold
Friday, January 21, 1994	Nevada Regional Science Bowl - Training	Las Vegas, NV	TBD
Friday, January 21, 1994	Johnson Junior High School - "Gee Whiz Science"	Las Vegas, NV	J. Blink
Tuesday, January 25, 1994	Johnson Junior High School - Paleontology	Las Vegas, NV	A. Gil
Tuesday, January 25, 1994	Green Valley High School Key Club - General Overview	Las Vegas, NV	A. Robison
Tuesday, January 25, 1994	Yucca Mountain Speaker Series (P) - "Constructing a Tunnel to Study a Mountain"	Las Vegas, NV	D. McKenzie J. Peck
Thursday, January 27, 1994	Yucca Mountain Speaker Series (P) - "Constructing a Tunnel to Study a Mountain"	Beatty, NV	D. McKenzie J. Peck
Friday, January 28, 1994	Ute Perkins Elementary School - Native American Culture	Moapa, NV	R. Arnold
Saturday, January 29, 1994	Amargosa Valley Girl and Boy Scouts - Geology Field Trip	Las Vegas, NV	TBD
Wednesday, February 2, 1994	C. P. Squires Elementary School - Energy	N. Las Vegas, NV	E. Harle
Thursday, February 3, 1994	Cannon Middle School - Native American Culture	Las Vegas, NV	R. Arnold

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Friday-Sunday, February 11-13, 1994	1994 Nevada Regional High School Science Bowl	Las Vegas, NV	E. Harle
Saturday, February 12, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Tuesday, February 22, 1994	Yucca Mountain Speaker Series (P) - "Fossils Tell a Story"	Las Vegas, NV	A. Gil
Thursday, February 24, 1994	Yucca Mountain Speaker Series (P) - "Fossils Tell a Story"	Beatty, NV	A. Gil
Sunday, February 27, 1994	Waste Management Symposia - TBD	Tucson, AZ	TBD
Monday-Saturday, February 28- March 12, 1994	JASON Project - "Rain Forest"	Las Vegas, NV	E. Harle
Sunday, March 20, 1994	Risk Management Quarterly Association - TBD	San Diego, CA	TBD
Sunday, March 27, 1994	Yucca Mountain Speaker Series (P) - "Desert Beauties - Spring Wildflowers"	Pahrump, NV	K. Wirtz
Tuesday, March 29, 1994	Yucca Mountain Speaker Series (P) - "Desert Beauties - Spring Wildflowers"	Las Vegas, NV	K. Wirtz
Saturday, April 2, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Tuesday, April 5, 1994	Science and Mountains Teacher Workshop	Las Vegas, NV	E. Harle
Thursday, April 7, 1994	Science and Mountains Teacher Workshop	Las Vegas, NV	E. Harle

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Monday, April 11, 1994	Critical Thinking Teacher Workshop	Las Vegas, NV	E. Harle
Tuesday, April 12, 1994	Science and Mountains Teacher Workshop	Las Vegas, NV	E. Harle
Thursday, April 14, 1994	Critical Thinking Teacher Workshop	Las Vegas, NV	E. Harle
Saturday, April 16, 1994	Critical Thinking Teacher Workshop	Las Vegas, NV	E. Harle
Saturday, April 16, 1994	Science and Mountains Teacher Workshop	Las Vegas, NV	E. Harle
Monday, April 18, 1994	Critical Thinking Teacher Workshop	Las Vegas, NV	E. Harle
Sunday, April 24, 1994	Yucca Mountain Speaker Series (P) - "Eating Your Way Through a Mountain"	Pahrump, NV	L. Destwolinski
Tuesday, April 26, 1994	Yucca Mountain Speaker Series (P) - "Eating Your Way Through a Mountain"	Las Vegas, NV	L. Destwolinski
Tuesday, May 31, 1994	LESSON Teacher Workshop - Science Workshop	Las Vegas, NV	TBD
Saturday, June 4, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Sunday, June 12, 1994	Southeast Area Regulatory Utility Commissioners Conference - TBD	Charleston, SC	TBD
Monday, June 13, 1994	LESSON Teacher Workshop - Science Workshop	Las Vegas, NV	TBD

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<u>Date</u>	<u>Event</u>	<u>Location</u>
J. <u>Exhibits Scheduled</u>		
None scheduled.		
<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u>		
Wednesday, December 22	TRW Systems Integration Group	TBD
Thursday, January 6, 1994	Inyo County	TBD
Tuesday, January 11, 1994	Amargosa Middle School	TBD
Wednesday, January 12, 1994	YMP Orientation Tour	A. Stephenson
Saturday, January 22, 1994	Public Open House (P)	Various Escorts
Monday, January 31, 1994	Steering Committee on High-Level Radioactive Waste Project - Japan	TBD
Friday, February 4, 1994	American Nuclear Energy Council	TBD
Thursday, February 10, 1994	Conference of Radiation Control Program Directors Committee on Radioactive Materials Transportation	TBD
Wednesday, February 16, 1994	Quannah McCall Sixth Grade Center	TBD
Saturday, February 26, 1994	Public Open House (P)	Various Escorts
Tuesday, March 8, 1994	St. Cloud State University (MN)	TBD

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u> (Continued)		
Saturday, March 19, 1994	Public Open House (P)	Various Escorts
Tuesday, March 29, 1994	W. Mac Lyon Middle School	TBD
Thursday, March 31, 1994	National Council, State Garden Club Specific Region Convention	TBD
Tuesday, April 12, 1994	Thurman White Middle School	TBD
Friday, April 15, 1994	Desert Survivors	TBD
Saturday, April 16, 1994	Public Open House (P)	Various Escorts
Wednesday, April 20, 1994	Cannon Junior High School	TBD
Thursday, April 28, 1994	Garside Junior High School	TBD
Thursday, May 12, 1994	CVT Gilbert Sixth Grade Center	TBD
Thursday, May 19, 1994	Western High School	TBD
Monday, May 23, 1994	American Society for Quality Control Conference	TBD

YMP:RVB-1444

Robert M. Nelson, Jr.
 Robert M. Nelson, Jr.
 Acting Project Manager