



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

file

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: January 5, 1994
SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE
WEEK ENDING DECEMBER 10, 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 10, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

Site Characterization Activities

Exploratory Studies Facility (ESF)

Design activities will continue on Package 1B with the completion of verification of the drawings and specifications subsequent to the baselining and U.S. Department of Energy (DOE) acceptance of the Basis For Design. Design activities will continue on Package 2A with the submittal of the drawings and specifications to the Yucca Mountain Site Characterization Project (YMP) Change Control Board for baselining. Continue design activities for Packages 2B, 1C, and 2C.

Complete pull testing of pattern bolts in the starter tunnel. Begin shotcreting of the boxcut at the entrance of the starter tunnel.

Begin shotcreting of test alcove from springline to springline over the entire length of the test alcove.

Construction will continue on the 69kV power distribution system with the continuation of trenching for duct banks on the pad and the fabrication of the duct banks.

Surface-Based Testing

Coring will continue at NRG-7/7A. Evaluation of conditions in USW UZ-14 will continue. Borehole gas permeability testing will continue at UZ-16. Evaluation of the ESF test alcove for testing will continue. Drilling of test instrumentation holes will continue at the large block experiment. Excavation of new trenches on the Bow Ridge and Paintbrush Canyon faults will continue. Field operations will be suspended for the Christmas holidays beginning at close of business December 17, 1993, and will resume January 3, 1994.

II. CRITICAL ITEM STATUS - YMP

A. Site Characterization Activities

ESF

Construction

The test alcove has been excavated to 27.4 meters (90 feet) from the center line of the starter tunnel. Geologic mapping, sampling, and photography is in progress in the alcove and is expected to be completed by December 10, 1993.

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Based on the U.S. Geological Survey (USGS) inspection of the test alcove, a decision was made to deepen the test alcove and extend it beyond the shear zone which was encountered. Excavation of the test alcove will be suspended until January 1994 to allow shotcreting and preparations for testing in the alcove. Completed mapping of test alcove. Continued pull testing of pattern bolts in the starter tunnel.

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

Construction is continuing on the 69kV power distribution system with the duct bank on the pad. Testing transformer (on loan from the Nevada Power Company) for 69kV electrical power and installing feeder line to batch plant site.

Completed excavation of the trench for the water line from Well J-13 to the Booster Pump Station. Continued placement of bedding sand in the trench.

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

69kVA power available
at the North Portal

Delayed to
January 31, 1994

This schedule delay was caused by unavailability of construction drawings for the four additional conduits that will be added to the 69kV system. This work is not on the critical path and has no impact on other construction activities.

Surface-based testing progress is summarized as follows:

<u>Borehole</u>	<u>Current Core Depth 12/10/93</u>	<u>Current Ream Depth 12/10/93</u>	<u>Total Planned Depth</u>
UZ-14	1,442.1 feet	1,421.6 feet	2,000 feet
NRG-7/7A	744.7 feet	302.1 feet	1,445 feet

On UZ-14, evaluation of the borehole is continuing. Plans for continued coring of the borehole to its planned depth of approximately 2,000 feet are under discussion.

On NRG-7/7A, a directional deviation survey was conducted at 710 feet. This survey again confirms that the hole will not enter the planned ESF north ramp.

On Job Package (JP) 92-20, ESF North Portal Pad and Facilities, excavation of the 4.5 mile water line trench is 100 percent complete to the proposed pump house. Approximately a mile of subgrade sand bedding is in place and 1,000 feet of pipe has been laid.

On JP 93-10, Fran Ridge Large Block Test, drilling of vertical instrumentation boreholes continues. Eleven of the seventeen holes are completed in the Topopah Spring welded tuff.

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On JP 93-13, SD-12 Drill Pad and Access Road are complete. Final inspection of the area was performed on December 8, 1993. The Access Road needs to be widened an additional 4 feet per the requirements and environmental access clearance stipulations.

JP 94-01, Quaternary Faulting Within the Site Area: Alice Ridge Trenches, trenching continues north west of Alice Hill. All of the original trenches will be approximately 100 feet longer. Another new 40 feet long x 5 feet wide x 3 feet deep trench is presently being excavated.

On JP 93-15, NRG-7/7A Borehole, the core depth is at 744.71 feet with the Odex casing at 302 feet.

On JP 92-17, UZ-14, the core depth is at 1,442.1 feet and ream depth at 1,421.6 feet.

On JP 93-11, C-Well Testing, packers are being installed in Well C-2. Packer gas leak repairs were made. Continue to monitor for packer gas leakage.

On C-Hole Complex Multiple-Well Hydraulic Interference Testing, Phase I, testing continued in UE-25 c#3. Emplacement of a string of three packers is in progress at UE-25 c#2. Extensive surface and near-surface testing of the packer assemblies are being conducted prior to inserting the assembly down the hole.

On Seismic Reflection Testing - Bow Ridge Fault (Exile Hill), was completed by Sandia National Laboratories (SNL) on December 9, 1993. Three seismic lines were completed in proximity to the North Ramp tunnel alignment on the west side of Exile Hill.

Geophysical logging was completed in all North Ramp geologic boreholes drilled to date.

On Faulting within the Site Area - Alice Ridge Trenches, existing Trench A-1 was deepened to 10 feet and lengthened 100 feet using a D-8 dozer. Trench MWV-T3 was excavated approximately 230 feet long and 10 feet deep using a backhoe. Mapping of trenches will be scheduled after completion of a safety analysis by a licensed soil engineer.

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

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SCP ACTIVITY	TITLE	COMMENTS
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, 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	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 Safety and Health Programs

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

An Air Quality permit application was submitted to the Bureau of Air Quality for the concrete batch plant in support of ESF construction.

Ten surveillances were performed by the Safety and Health Division during this reporting period.

Performed two surveillances in Fran Ridge and Building 4516.

Began ground work with DOE Safety and Health Specialist on development of Risk Assessment Class for all Project Safety and Health personnel.

Large Block Test

Fourteen of seventeen planned instrumentation holes have been drilled in the test block of Topopah Springs welded tuff.

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Regulatory InteractionsSite Characterization Progress Report (PR)

Concurrence copies of the ninth Site Characterization Progress Report will be sent to DOE/Headquarters (HQ) December 13, 1993, to initiate the Office of Civilian Radioactive Waste Management (OCRWM)/DOE concurrence. OCRWM concurrence has been requested by December 17, 1993, and DOE concurrence by December 24, 1993, in order to meet the scheduled January 31, 1994, distribution date for the PR.

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.....	38	0
In Screening Review	0	0
In YMPO Review	0	1
Awaiting Comment Resolution	4	2
In Verification Audit	5	1
Awaiting YMPO Approval	0	1
Awaiting Submission to the U.S. Nuclear Regulatory Commission (NRC)	0	0
Awaiting NRC Initial Review	8	5
Accepted by NRC	49	5
Totals	104	15
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	28
Responses Transmitted from DOE to NRC	24

B. Project Planning and Control

Presented briefing to participant project control managers in the schedule integration process, the integrated schedule maintenance process, the Monthly Management Meeting and Director's Project Review development process. Also discussed Budget/Carry Over and Variance Reporting.

C. Quality Assurance (QA) Implementation

The Technical & Management Support Services QA is preparing to perform a vendor audit of Westinghouse Engineering Services. The audit will be conducted during December 1993.

III. GENERAL INFORMATION ITEMS

The Technical Data working group convened its quarterly meeting on December 8, 1993. The group discussed implementation of the Technical Data Parameter Dictionary, advances made in the Automated Technical Data Tracking System, and plans for fiscal year 1994.

The Performance Assessment (PA) staff is revising the waste isolation evaluation of tracers, fluids, and materials usage for Package 1A construction for the ESF (included were the starter tunnel, Alcove 1, topsoil and rock storage areas, the north portal pad and surface facilities, and associated access roads and culverts). In addition, this revised evaluation includes the launch chamber for the tunnel boring machine and incorporates the constraints for water usage in the starter tunnel and Alcove 1 that were provided by subsequent specific evaluations. This revision provides an integrated evaluation of potential geochemical perturbations resulting from organic material in the starter tunnel and Alcove 1.

The staff attended the SNL Total System Performance Assessment-93 comment resolution meeting in Albuquerque, New Mexico, on December 8, 1993. The majority of the comments were supplied by members of the SNL Waste Isolation Pilot Plant PA team. Several changes will be made as a result of this meeting.

Old and unusable samples of spent fuel prepared by the Materials Characterization Center at Pacific Northwest Laboratories, under a Lawrence Livermore National Laboratory subcontract, are going to be packaged and consolidated for storage. These samples are unusable due to contamination in the hot cells and have presented inventory problems. Consolidation will simplify accountability of special nuclear materials.

The effects of organic coatings produced by fulvic acid solutions on Yucca Mountain tuff have been examined. Preliminary results indicate that the organic coatings do not significantly affect the sorption of neptunium.

Regarding Waste Package, evaluations continued on the impact to the internal thermal environment that a waste package emplaced in an in-drift configuration may be subjected to following crushed-tuff backfill. Completed pretest analyses of a backfill thermal conductivity experiment using nonlinear heat conduction codes and approximations of effective conductivities obtained from open literature. The results of the pretest analyses will assist in determining test-apparatus insulation requirements, heater power requirements, and estimates of resulting thermal profiles for use in optimizing sensor placement for waste package environment testing.

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In the unsaturated zone, the USGS continued air permeability testing in UE-25 UZ-16 this week, moving upward from the Prow Pass Tuff into the Calico Hills Tuff. Some equipment problems were encountered late in the week. High humidity conditions in the vicinity of the water table affected some of the downhole electronics. The USGS also collected numerous gas and water samples from the USW UZ-6s borehole, and placed one-way vents on UE-25 NRG-2b, NRG-4, NRG-5, and NRG-6 to allow the formation of degas for four to six weeks before collecting "pristine" samples. USW UZ-13 was equipped for continuous monitoring of natural air flow in and out of the borehole (and the unsaturated zone) for a period of several weeks. Samples of fibercrete were collected from the ESF for chemical analysis, and experiments were arranged to investigate the depth of fibercrete penetration into fractures in the tunnel. This was done in anticipation of planned shortcrete application in Test Alcove 1 across the crown. The USGS also collected routine shallow borehole neutron moisture data and precipitation measurements this week.

IV. PUBLIC OUTREACH AND INSTITUTIONAL ACTIVITIES

Several educational presentations were given. These included a presentation on "Gee Whiz Science" to 90 students at C. P. Squires Elementary School in Las Vegas, Nevada, on December 6, 1993; a presentation on earthquakes to 12 members of the Las Vegas Breakfasters Lions Club on December 9, 1993; and presentations by Richard Arnold, a consultant, on Native American Culture, to 100 students of Court Continuation School on December 9, 1993, and to 100 students at Fay Herron Elementary School on December 10, 1993, in Las Vegas, Nevada.

A Public Open House tour of Yucca Mountain was coordinated and conducted on December 4, 1993, for 122 people. Tour participants visited the Yucca Mountain Science Centers (YMSC), the Field Operations Center, two laboratories, the LM-300 drill rig, the top of Yucca Mountain, and the ESF north portal construction area.

Tours to Yucca Mountain were conducted on December 6, 1993, for five guests of Stoller Corporation; on December 7, 1993, for three guests from the National Nuclear Safety Administration - China; and on December 8, 1993, for Asashi Shimbun of the Japanese media. A school tour was also conducted on December 8, 1993, for 120 students of Clark High School. A pretour briefing was given to the group from Stoller Corporation at the Las Vegas YMSC.

Institutional and External Affairs (IEA), Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O), and YMPO personnel set up and staffed a YMP exhibit at the American Geophysical Union Conference, December 6-10, 1993, in San Francisco, California. Approximately 550 people viewed the displays.

The IEA staff coordinated and attended the Affected Units of Government Meeting in Las Vegas, Nevada, December 10, 1993.

The IEA staff have completed a year-end video titled: "New Work Update, 1993 in Review." The seven-minute video features construction work on the ESF as well as surface-based testing, environmental studies, and public outreach activities. Five hundred copies are in distribution to the media and other interested parties.

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The IEA staff responded to an urgent short-notice request by YMP SNL for numerous color photographs and video scenes. The request was filled within 12 hours.

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>			
No significant meetings to report.			
B. <u>DOE/HQ 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/Nevada Operations Office Meetings</u>			
Thursday, December 16	Technical Project Officers Meeting	Las Vegas, NV	R. Nelson
Thursday, December 16	Planning and Budget Meeting	Las Vegas, NV	R. Nelson
E. <u>NRC Interactions</u>			
Wednesday, December 8	NRC Technical Meeting on ESF Update and Status	Washington, DC	T. Bjerstedt
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

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>NRC Interactions</u> (Continued)			
Tuesday - Wednesday, February 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. Bjertsedt
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 PA	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</u> (Continued)			
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>Advisory Committee on Nuclear Waste (ACNW) Interactions</u>			
Monday, December 13	ACNW 59th Meeting (P)	Las Vegas, NV	A. Gil
Tuesday, December 14	ACNW Working Group on Unsaturated Zone Hydrology (P)	Las Vegas, NV	A. Gil
Wednesday, December 15	ACNW Site Tour at Yucca Mountain (P)	Las Vegas, NV	A. Gil
H. <u>National Academy of Sciences (NAS) Interactions</u>			
Thursday- Friday, December 16-17	NAS Committee on Yucca Mountain Standards (P)	Washington, DC	S. Jones

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
H. <u>NAS Interactions</u> (Continued)			
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>			
Saturday, December 11	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Tuesday, December 14	K. O. Knudson Middle School - Mineral Resources	Las Vegas, NV	J. Peck
Tuesday, December 14	Roy Martin Junior High School - Mining	Las Vegas, NV	M. Pitterle
Wednesday, December 15	Pahrump Fifth & Sixth Grade Center - Native American Culture	Pahrump, NV	R. Arnold
Thursday, December 16	Green Valley High School - Career as Engineer on YMP	Henderson, NV	D. McKenzie
Thursday, December 16	Mt. Charleston Elementary School - Native American Culture	Mt. Charleston, NV	G. Fasano R. Arnold
Monday, December 27	Nevada Business Services - Job Opportunities	Las Vegas, NV	TBD
Friday, December 31	Widowed Persons Group - General Overview	Las Vegas, NV	J. Peck
Wednesday, January 12, 1994	Red Rock Visitors' Center - Native American Culture	Red Rock, 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, 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
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	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

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Thursday, January 27, 1994	Yucca Mountain Speaker Series (P) - "Constructing a Tunnel to Study a Mountain"	Las Vegas, NV	D. McKenzie J. Peck
Saturday, January 29, 1994	Amargosa Valley Girl and Boy Scouts - Geology Field Trip	Las Vegas, NV	TBD
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"	Las Vegas, 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 Flowers"	Pahrump, NV	K. Wirtz
Tuesday, March 29, 1994	Yucca Mountain Speaker Series (P) - "Desert Beauties - Spring Flowers"	Pahrump, NV	K. Wirtz

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
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
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"	Pahrump, 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

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
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
<u>Date</u>	<u>Event</u>	<u>Location</u>	
J. <u>Exhibits Scheduled</u>			
Monday- Friday, December 13-17	Migration '93	Charleston, SC	
<u>Date</u>	<u>Event</u>	<u>Escorts</u>	
K. <u>Tours Scheduled</u>			
Wednesday, December 15	ACNW	A. Gil	
Thursday, December 16	Churchill County	C. Binzer	
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	
Friday, February 4, 1994	American Nuclear Energy Council	TBD	

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u> (Continued)		
Saturday, February 26, 1994	Public Open House (P)	Various Escorts
Tuesday, March 8, 1994	St. Cloud State University (MN)	TBD
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
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 19, 1994	Western High School	TBD
Monday, May 23, 1994	American Society for Quality Control Conference	TBD

YMP:RVB-1342



Robert M. Nelson, Jr.
Acting Project Manager