



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

Reply to:  
301 E. Stewart Ave., Rm. 203  
Las Vegas, NV 89101  
Tel: (702) 388-6125

TO: Joseph Holonich, Branch Chief, HLUR, M/S 7J-9  
FROM: Sr. On-Site Licensing Representatives' Office  
DATE: June 7, 1994  
SUBJECT: OFFICE OF GEOLOGIC DISPOSAL WEEKLY HIGHLIGHTS FOR THE  
WEEK ENDING MAY 13, 1994

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

Enclosure as stated

cc: w/enc.: Robert Johnson, M/S T-7J-9  
Anne Garcia, M/S T-7J-9

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See logs, a couple  
of small items*  
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*JS*  
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cc:

H. H. Brandt, HQ (RW-13) FORS  
J. C. Bresee, HQ (RW-10) FORS  
Daniel Grasser, 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  
L. H. Barrett, HQ (RW-2) FORS  
Samuel Rouso, HQ (RW-10) FORS  
J. D. Saltzman, HQ (RW-5) FORS  
J. P. Roberts, HQ (RW-30) FORS  
C. M. Smith, HQ (RW-2) FORS  
A. P. Gupta, HQ (PR-242) FORS  
J. H. Anttonen, BWI, Richland, WA  
Ron Pope, ORNL, Oak Ridge, TN  
P. S. Justus, NRC, Las Vegas, NV  
J. W. Gilray, 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  
A. C. Douglas, City of Las Vegas, Las Vegas, NV  
Donald Schweitzer, BNL, Upton, NY  
D. T. Oakley, LANL, Washington, DC  
J. A. Docka, Weston, Washington, DC  
S. L. Love, Weston, Washington, DC  
J. L. Smith, Occidental, CA  
C. A. Johnson, NWPO, Carson City, NV  
R. R. Loux, NWPO, Carson City, NV  
Scott Peterson, ANEC, Washington, DC  
C. J. Henkel, NEI, Washington, DC  
David Howell, IG, Las Vegas, NV



**Department of Energy**  
Office of Civilian Radioactive Waste Management  
Yucca Mountain Site Characterization 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  
MAY 13, 1994 (SCP: N/A)

**I. FORECAST SIGNIFICANT EVENTS**

**Suitability and Licensing**

Regulatory and Licensing staff will participate in the U.S. Department of Energy-U.S. Nuclear Regulatory Commission management meeting to negotiate interactions for the second half of 1994. This negotiation will be based upon a list of desired interactions requested by the two agencies. The meeting will be held on May 17, 1994.

Staff will participate in the U.S. Department of Energy-U.S. Nuclear Regulatory Commission managers meeting on May 19, 1994, to brief U.S. Nuclear Regulatory Commission managers on the Proposed Program Approach and on the U.S. Department of Energy Issue Resolution approach, status, and the review and approval process.

**Public Outreach and Institutional Activities**

A "Neighborhood Dialogue," cosponsored by the State of Nevada, Nye County, and the Yucca Mountain Site Characterization Project, will be held at the Bob Ruud Community Center in Pahrump, Nevada, May 18, 1994.

The Stakeholders' Meeting, sponsored by the U.S. Department of Energy to discuss issues related to the Yucca Mountain Site Characterization Project, will be held in Las Vegas, Nevada, May 21, 1994. There will be a number of discussions, including a project update and in-depth and open dialogue about the process of site suitability evaluation.

**II. CRITICAL ITEM STATUS - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT**

**Exploratory Studies Facility**

Completed receipt of the tunnel boring machine at the Yucca Mountain Site Characterization Project. Continued two shift, six-days-a-week assembly of the tunnel boring machine. Completed assembly of the

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main bearing and lower forward shield components and started on upper forward shield section and trailing Car No. 5. This included completing assembly consisting of installation of the lube oil assembly, bridge beam, bottom gripper shoes, lower four drive motors, and lower shield welding. Also began assembly consisting of installation of dust shield/tow cylinders, some segments for cutter head installation, and side and top drive motors.

Completed forming and poured the second segment of runway from tunnel boring machine assembly area to the box cut at the mouth of the starter tunnel.

Completed cleanup of starter tunnel invert.

Completed forming and poured main concrete work area slab at tunnel liner segment precast yard adjacent to the concrete batch plant.

Completed work to tie-in waterline at Well J-13.

Continued construction of the subsurface waste water, sanitary sewer, and fire/potable water lines on the North Portal Pad.

Continued certification of the concrete batch plant and the truck mixers by the State of Nevada.

Continued construction of the foundation for the switchgear building.

Continued construction on the temporary portion of the power distribution system with the continuation of installation of duct banks, manholes, transformers, and lighting on the North Portal Pad. Continue installation of the grounding grid on the North Portal Pad.

Continued work on Canyon Substation.

The following milestone represents the near-term plan for Exploratory Studies Facility activities: begin tunnel boring machine operations, August 8, 1994.

#### Design

Completed baselining of Design Package 1C and 2B drawings and specifications. Continuing design activities for Design Package 1D and the Integrated Data Control System. Initiated design for Design Package 8A.

#### Site Characterization Testing

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Current Core Depth 05/13/94</u>	<u>Current Ream Depth 05/13/94</u>	<u>Total Planned Depth</u>
UZ-14	667.8 meters (2,223.6 feet)	433.30 meters (1,421.6 feet)	609.6 meters (2,000 feet)
SD-12	211.1 meters (692.5 feet)	207.4 meters (680.4 feet)	701.04 meters (2,300 feet)

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Regarding Borehole UZ-14, was cored a total of 5.2 meters (16.9 feet) to total depth. The bottom of the hole is in the Bullfrog unit of the Crater Flat tuff, where saturated conditions were first encountered at approximately 665.0 meters (2,185 feet). The U.S. Geological Survey performed water-level monitoring and fluid sampling. The drilling equipment is being demobilized.

Regarding Job Package 94-04, SD-12 Borehole, was cored a total of 15.8 meters (51.8 feet) and reamed a total of 13.7 meters (45.1 feet). The bottom of the borehole is presently in the Topopah Spring (TSW<sub>1</sub>) unit.

Regarding Job Package 94-06, SD-9 Borehole, the initial part of the borehole was drilled from surface to 2.6 meters (8.5 feet), and the 16-inch diameter conductor casing was installed and grouted in place. The Stratmaster drilling equipment will next be mobilized from UZ 14 to the site for the remainder of this drilling activity.

Sites were located for the South Ramp Geotechnical series drillholes. SRG-4 was combined with hole SD-7, and approval was given to initiate environmental clearance activities. Drilling is planned to start in early summer.

Regarding Trench NRT-1, a percolation test was taken at the north end of the trench. Plate load bearing tests are planned to follow immediately.

Casing was pulled in conjunction with logging at Borehole UE-25 UZN-85.

Conducted four core examinations at the Sample Management Facility for principal investigators from the U.S. Geological Survey and the Lawrence Livermore National Laboratory.

The Sample Management Facility processed core and cuttings from drilling activities.

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

SITE CHARACTERIZATION PLAN ACTIVITY	TITLE	COMMENTS
8.3.1.3.2.1	Mineralogy, Petrology & Rock Chemistry of Transport Pathways	Exploratory Studies Facility sampling
8.3.1.3.2.2	Mineralogic & Geochemical Alteration	Exploratory Studies Facility sampling
8.3.1.4.2.1	Characterization of Vertical/Lateral Distribution of Stratigraphic Units in Site Area	Ongoing core logging
8.3.1.4.2.2	Structural Features within Site Area	Surface and Exploratory Studies Facility mapping
8.3.1.4.3.1	Systematic Acquisition of Site Specific Subsurface Information	Systematic drilling/testing
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	Trenching and ramp exploration holes
8.3.1.17.4.2	Location & Recency of Faulting Near Prospective Surface Facilities	Trench logging
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
8.3.1.17.4.6	Quaternary Faulting within Site Area	Trench logging
8.3.1.2.1.1	Precipitation & Meteorological Monitoring for Regional Hydrology	Ongoing measurements
8.3.1.2.1.2	Runoff & Streamflow	Ongoing measurements
8.3.1.2.1.3	Regional Groundwater Flow System	Ongoing monitoring
8.3.1.2.2.1	Unsaturated Zone Infiltration	Logging of neutron-access holes; ponding tests
8.3.1.2.2.2	Water Movement Tracer Tests	C1-36 measurements (surface-based testing drillholes, Exploratory Studies Facility)
8.3.1.2.2.3	Percolation in the Unsaturated Zone	Unsaturated zone drilling/testing
8.3.1.2.2.4	Characterization of Unsaturated Zone (Exploratory Studies Facility)	Hydrochemistry/radial boreholes testing
8.3.1.2.2.6	Gaseous Phase Movement in Unsaturated Zone	Unsaturated Zone drilling/testing
8.3.1.2.2.7	Unsaturated Zone Hydrochemistry	Unsaturated Zone drilling/testing
8.3.1.2.3.1	Site Saturated Zone Groundwater Flow System	Ongoing monitoring, C-Well testing
8.3.1.2.3.2	Saturated Zone Hydrochemistry	Ongoing monitoring
8.3.1.15.1.8	In Situ Design Verification	Construction monitoring/testing
8.3.4.2.4.4	Engineered Barrier System Field Test	Preparation of Fran Ridge Test Block

Yucca Mountain Site Characterization Office

Staff will be reviewing Exploratory Studies Facility Design Package 2C. The design review meetings will be conducted May 16-20, 1994. During the design review meetings, the Yucca Mountain Site Characterization Office will be the point of contact for observers from the U.S. Nuclear Regulatory Commission, the Nuclear Waste Technical Review Board, and the affected units of government. Comments from these organizations will be obtained, reviewed, and resolved.

Environmental Safety and Health Programs

Seventeen environmental compliance and safety surveillances were conducted at the Yucca Mountain site ensuring compliance with permit and programmatic requirements.

Large Block Test

Removal of rock material surrounding the large block test is in progress. The Infiltration Test, mapping rock fracture using tracer fluids, is continuing. Fractures have been mapped at three levels to approximately three feet in depth. Tracer fluids show good hydraulic connection between fractures.



Site Characterization Plan/Study Plan Status

No study plans were approved by the Yucca Mountain Site Characterization Office.

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
<b>Not Submitted to Yucca Mountain Site</b>		
Characterization Office .....	32	0
In Screening Review .....	0	0
<b>In Yucca Mountain Site</b>		
Characterization Office Review .....	3	4
Awaiting Comment Resolution .....	3	2
In Verification Audit .....	7	1
<b>Awaiting Yucca Mountain Site</b>		
Characterization Office Approval ....	0	0
<b>Awaiting Submission to</b>		
U.S. Nuclear Regulatory Commission...	1	0
<b>Awaiting U.S. Nuclear Regulatory</b>		
Commission Initial Review .....	8	6
<b>Accepted by U.S. Nuclear Regulatory</b>		
Commission .....	50	6
<b>Totals .....</b>	<b>104</b>	<b>19</b>
<b>Total Submitted to U.S. Nuclear</b>		
<b>Regulatory Commission .....</b>	<b>58</b>	<b>12</b>

State of Nevada Comments Status:

Received Comments from the State of Nevada..... 32  
 Responses Transmitted to the State of Nevada ..... 24

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U.S. Nuclear Regulatory Commission Comments Status:

Received Comments from U.S. Nuclear Regulatory Commission .....	31
Responses Transmitted from U.S. Department of Energy to U.S. Nuclear Regulatory Commission.....	25

III. GENERAL INFORMATION ITEMS

Office of Geologic Disposal Staff presented the proposed outline of 10 CFR Part 960 Options Paper to the Yucca Mountain Site Characterization Office Site Suitability Task Force in Las Vegas, May 13, 1994.

Staff participated in discussion of the licensing approach for McGuire Nuclear Station and Louisiana Gas Centrifuge Enrichment Plant to consider lessons learned that might be applicable to the Office of Civilian Radioactive Waste Management program on May 9, 1994, in Charlotte, North Carolina.

Staff initiated efforts concerning action items stemming from the Hydrology Integration Task Force Meeting, May 5, 1994. Action items address prioritization of hydrology testing and issues to reflect the Proposed Program Approach schedule and goals.

Staff participated in the Geochemistry Integration Team teleconference on May 12, 1994.

Staff participated in the Idaho National Engineering Laboratory Greater-than-Class-C Waste Characterization meeting in Salt Lake City, Utah, May 10-12, 1994. Other staff members participated in a Planning Meeting on Engineered Barrier System Materials Characterization Effort in fiscal year 1995, in Pleasanton, California, May 10-12, 1994.

Mined Geologic Disposal System staff participated in a meeting, May 10, 1994, in Washington, D.C., to discuss coordination of site-suitability strategy with development of plans to implement the Proposed Program Approach for the repository program, followed by a kick-off meeting, May 12, 1994, in Las Vegas.

Participated in a meeting in Las Vegas, May 13, 1994, to discuss plans for development of a site-suitability evaluation process.

Occurrence Reporting Processing System revised viewgraph presentation - Stephan Brocoum to Daniel Dreyfus with input from meeting with Stephan Brocoum/Robert Barton.

Identified specific U.S. Department of Energy Orders (5500 series) that specify Emergency definitions/categories planned for use in upcoming revision of Occurrence Reporting Processing System Order (5000.3B).

Monitored Occurrence Reporting Processing System data base and obtained Lag Performance Reports for Office of Civilian Radioactive Waste Management Occurrences to date and compared with similar U.S. Department of Energy-wide reports (provided at Occurrence Reporting Processing System Workshop in April 1994).

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Regarding Chemical and Mineralogical Properties of the Waste Package Environment work at Lawrence Livermore National Laboratory, the work on the New Zealand natural process analog site continued. Staff compared results of affinity versus temperature calculations in which different assumptions were made regarding water composition parameters. It appears that thermodynamic data for dissolved silica currently used in the Geologic and Engineering Materials Bibliography of Chemical Species data base may need to be modified. Field-based experiments on silica precipitation kinetics were started, along with experiments examining the dissolution behavior of a wide range of metals and other materials in some natural waters in the New Zealand geothermal field. The purpose is to resolve conflicts between rates measured in the field and those measured in the laboratory. These experiments are also designed to provide information on the effect of precipitation on changes in porosity and permeability by establishing whether particular pore geometries favor precipitation.

Los Alamos National Laboratory trace-mineral studies for sorption staff have encountered some problems in microautoradiography with thin-sections that separate from the glass slides on which they are mounted. This separation occurs while the sections are exposed to radionuclide-bearing solutions. Since the sections themselves remain intact, retaining rings will be used to permit the experiments to continue.

Los Alamos National Laboratory staff prepared graphic materials and slides for the presentation entitled "Inferences of Paleoenvironment from Petrographic, Chemical, and Stable-Isotope Studies of Calcretes and Fracture Calcites." This material will be presented at the International High-Level Radioactive Waste Management Conference, May 26, 1994, in Las Vegas.

A set of thermogravimetric experiments on K-exchanged clinoptilolite was started. The material was equilibrated in 25 and 2.5 mbar partial pressure atmospheres of water over a temperature range from 25 to 200 degrees Celsius. In addition, a set of thermogravimetric experiments on Na-exchanged montmorillonite began. This material was equilibrated with partial pressures of water ranging from 0 to 25 mbar and temperatures from 25 to 75 degrees Celsius.

Cation exchanged six smectite standards to produce endmember Na, Ca, and K homoionic samples. These samples will be used to determine the manner in which water interacts with smectite as a function of chemistry, water vapor pressure, and temperature. These data will be used in predictions of the behavior of smectite and its importance in water release and readsorption during the heating and cooling cycle in a potential repository environment.

Preliminary results were obtained on the Na-exchanged SAz-1 smectite from Cheto, Arizona, by conducting X-ray diffraction analyses on an oriented sample equilibrated at varying relative humidities. This smectite exhibits two discrete steps in structural expansion as humidity is increased; it begins as a zero water-layer structure, expands to one water layer and then to two. Isothermal thermogravimetric analyses on the same sample show that the water abundance in the sample increases in the same distinct stepwise manner and at the same relative humidities at which the structure expanded.

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Sandia National Laboratories' Technical Project Officer met with the Audit Team Leader for the purpose of clearly identifying the objectives and time frame of the Sandia National Laboratories/Yucca Mountain Site Characterization Project internal audit. The audit will be held the week of June 6, 1994. The technical areas to be investigated during the audit were established during the meeting and the Audit Team Leader was charged with providing a demanding, rigorous audit.

A two-dimensional model of rock mechanical properties has been completed along the North Ramp. Although, this modeling activity is not formally designated as "quality affecting" (the required study plan has not been approved by the Yucca Mountain Site Characterization Office), development of the model has followed scientific notebook procedures, and it is quality assurance-traceable. A technical memo describing the model and summarizing analyses of the distribution of rock mechanical properties is being reviewed. A stratigraphic model of the entire site area is also in preparation using Quality Administrative procedures. TP-231, "Examination of Drill Core for the Purpose of Classifying Lithologic for Computer Modeling," is nearing the end of its review process. Data is being collected to evaluate the effect of vapor phase alteration on other rock properties (i.e., thermal and hydrological).

The automated gas permeameter system has been used to acquire gas permeability data at five discrete measurement scales from two rock samples collected from Yucca Mountain (Upper Cliff and Caprock Microstatic units in Tiva Canyon Member of the Paintbrush Tuff). The two samples, which are characterized by very different heterogeneity structure, were found to yield very different scaling behavior, as exhibited by changes in the distribution functions and variograms with increasing measurement scale. Simple dimensionless models have been fit to the measured scaling behavior that have similar function forms but very different magnitudes. Development of these models represents an important first step toward testing and eventually improving current constitutive scaling models.

U.S. Geological Survey staff continued petrographic studies of the relationships between opaque mineral phases and stratigraphic position in the Tiva Canyon tuff. Work also continued on the July 1994 milestone for stratigraphic criteria on the Prow Pass tuff and Calico Hills Formation in cores and surface outcrops.

Tectonics personnel performed geologic mapping on the Mine Mountain Fault northeast of Yucca Mountain and on the Windy Wash Fault in Crater Flat.

Regarding Saturated Zone Studies, staff collected water samples from USW UZ-14 for hydrochemistry analyses.

Regarding Unsaturated Zone Studies, personnel ran caliper logs and down hole video to locate washout zones in UE-25 UZN-85 as the casing was removed from the borehole. A video log was also run in a radial borehole (RBT-2) in the test alcove of the Exploratory Studies Facility.

The U.S. Geological Survey/Yucca Mountain Site Characterization Project Quality Assurance Office ran an informal field surveillance of ongoing activities at the Nevada Test Site.

Suitability and Licensing staff prepared presentation materials for the May 19, 1994, U.S. Department of Energy-U.S. Nuclear Regulatory Commission managers meeting for briefing on Issue Resolution approach, status, and U.S. Department of Energy expectations of the U.S. Nuclear Regulatory Commission and conducted a strategy session with the licensing team.

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Civilian Radioactive Waste Management System Management and Operating Contractor review of Progress Report 10 was conducted. The copies of the draft were distributed on May 9, 1994, with review comments due by May 13, 1994.

Staff coordinated and participated in a meeting between members of the U.S. Department of Energy/Yucca Mountain Site Characterization Office licensing team and members of Duke Power Company licensing teams, including the Chief Executive Officer of the company responsible for the design, construction, and licensing of seven nuclear power plants. Duke personnel made presentations on the licensing of Duke's nuclear power plants and the current efforts to license the Louisiana Energy Services uranium enrichment plant. Lessons-learned from those efforts were reviewed and the possible application of that experience to repository siting and licensing was discussed. ~~Applicable lessons-learned include an openness policy with the U.S. Nuclear Regulatory Commission such that they are not surprised by any formal distribution of information, the use of a customer-driven approach when dealing with the U.S. Nuclear Regulatory Commission, and the need to initiate and maintain the pre-licensing momentum.~~

Technical and Management Support Services staff processed a Change Control Board change request to the Systems Engineering Management Plan for the Site Manager.

Field Operating Instruction 1501, Nevada Test Site Motor Pool was published.

Performance Assessment Technical Synthesis Team Leader presented a paper describing the current status of modeling efforts related to performance assessment at a conference on that subject in Cadarache, France. Also gave a presentation on the Geology of Western Greenland at a lecture series at the Office of Civilian Radioactive Waste Management System Information Center in L'Enfant Plaza.

#### IV. PUBLIC OUTREACH AND INSTITUTIONAL ACTIVITIES

A general Yucca Mountain Site Characterization Project overview with a briefing on environmental issues was given to 35 guests of the Environmental Committee of the National Security Industrial Association, on May 11, 1994, in Las Vegas.

An educational presentation on "Gee Whiz Science" was given to 20 teachers at a teacher workshop at Woolley Elementary School in Las Vegas on May 7, 1994. Presentations on Native American culture were given to 100 students at C. H. Decker Elementary School on May 9, 1994, and to 300 students at Johnson Junior High School on May 10, 1994, in Las Vegas. A "Yucca Mountain Johnny" presentation was given to 105 students at C. P. Squires Elementary School on May 10, 1994, in Las Vegas. Other educational presentations included two presentations on geology related to Yucca Mountain given to 150 students at Swainston Middle School on May 10, 1994; and to 90 students at Western High School on May 12, 1994; and two presentations on chemistry given to 20 students at Ruby Thomas Elementary School on May 11, 1994; and to 20 students at Fitzgerald Prime Six School on May 12, 1994, in Las Vegas.

Two fifth-grade classes toured the Las Vegas Yucca Mountain Science Center and attended presentations on energy and geology, May 10-11, 1994. These included a class of 60 students from Bill Yonema Tomiyasu Elementary School and a class of 40 students from Chester T. Sewell Elementary School.

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A tour to Yucca Mountain was conducted on May 11, 1994, for 15 guests from the Republican Convention. Two tours were conducted on May 12, 1994, for 25 guests from the National Security Industrial Association, and for a guest from Black Star Photography. A school tour to Yucca Mountain was also conducted on May 12, 1994, for 120 students from CVT Gilbert Sixth Grade Center.

Yucca Mountain Site Characterization Project staff attended the State, Tribal, and Local Government Planning Group Meeting, on May 10, 1994, in Eureka, Nevada, and the Lincoln County/City of Caliente Joint City/County Impact Alleviation Committee meeting on May 13, 1994, in Caliente, Nevada. The Yucca Mountain Site Characterization Office loaned 20 computers to the Caliente Community College.

The Southern Nevada Science Teachers Association held its monthly meeting at the Las Vegas Yucca Mountain Science Center on May 10, 1994. Yucca Mountain Site Characterization staff presented an overview of the educational resources available to teachers through the Yucca Mountain Site Characterization Office.

Yucca Mountain Site Characterization Project staff conducted a Clark County School District Elementary Science Teachers Workshop Session at the Las Vegas Yucca Mountain Science Center on May 7, 1994. Eight teachers attended the workshop where they were involved in activities designed to empower teachers to do hands-on and minds-on science with their students.

Staff completed 31 external information requests. This was accomplished by providing written responses to written and verbal queries and/or by supplying existing literature.

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 Lawrence Weekly at (702) 794-7896 or Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are coordinated by Joanna Magruder at (702) 794-7056, Neighborhood Dialogues are coordinated by Theresa Hirsch at (702) 794-7759, 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>Yucca Mountain Site Characterization Project Contact</u>
<b>A. <u>Stakeholders' Meetings</u></b>			
Saturday, May 21	Office of Civilian Radioactive Waste Management Stakeholders' Meeting (P)	Las Vegas, NV	R. Nelson
Friday, June 10	Affected Units of Government (P)	Las Vegas, NV	R. Nelson
<b>B. <u>U.S. Department of Energy/Headquarters Meetings</u></b>			
Thursday, June 9	Office of Civilian Radioactive Waste Management - Director's Program Review (P)	Video- conference	R. Nelson

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Yucca Mountain  
Site  
Characterization  
Project Contact

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Project Contact</u>
<b>C. <u>Civilian Radioactive Waste Management System Management and Operating Contractor/U.S. Department of Energy Meetings</u></b>			
No significant meetings to report.			
<b>D. <u>Internal and U.S. Department of Energy/Nevada Operations Office (NV) Meetings</u></b>			
No significant meetings to report.			
<b>E. <u>U.S. Nuclear Regulatory Commission Interactions</u></b>			
Tuesday, May 17	U.S. Nuclear Regulatory Commission Meeting on Interactions Scheduling (P)	TBD	T. Bjerstedt
<b>F. <u>Nuclear Waste Technical Review Board Interactions</u></b>			
Monday- Tuesday June 13-14	Nuclear Waste Technical Review Board SG&G Panel Meeting - Exploratory Studies Facility Update in Light of the Proposed Program Approach	Las Vegas, NV	J. Nesbit
Wednesday- Thursday June 15-16	Nuclear Waste Technical Review Board: Engineered Barrier System Panel Meeting; Tour of Hanford Site	Richland, WA	TBD
<b>G. <u>Advisory Committee on Nuclear Waste Interactions</u></b>			
Wednesday- Thursday, May 18-19	64th Advisory Committee on Nuclear Waste Meeting on Topic TBD (P)	Bethesda, MD	A. Gil
<b>H. <u>National Academy of Sciences Interactions</u></b>			
No significant interactions to report.			
<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
<b>I. <u>State and Public Interactions</u></b>			
Tuesday, May 17	Role of Nevada's Scientific and Engineering Community in the Yucca Mountain Suitability Study	Las Vegas, NV	Various Yucca Mountain Site Characterization Project Staff
Wednesday, May 18	Role of Nevada's Scientific and Engineering Community in the Yucca Mountain Suitability Study	Las Vegas, NV	Various Yucca Mountain Site Characterization Project Staff

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
<b>I. <u>State and Public Interactions</u> (Continued)</b>			
Wednesday, May 18	Spring Quality Supervisors Conference - General Overview with Quality Assurance	Pittsburgh, PA	C. Pflum R. Spence
Wednesday, May 18	Pahrump Neighborhood Dialogue - General Overview (P)	Pahrump, NV	TBD
Saturday, May 21	Stakeholders' Meeting	Las Vegas, NV	Various Yucca Mountain Site Characterization Project Staff
Sunday, May 22	Yucca Mountain Speaker Series - "The Science of Measuring and Tracking Water" (P)	Pahrump, NV	A. Flint
Tuesday, May 24	Yucca Mountain Speaker Series - "The Science of Measuring and Tracking Water" (P)	Las Vegas, NV	A. Flint
Friday, May 27	U.S. Department of Energy Science Center Steering Committee Meeting - Upcoming Events	Las Vegas, NV	Various Yucca Mountain Site Characterization Project Staff
Tuesday, May 31	Elko Lions Club-General Overview with Emphasis on Transportation	Elko, NV	P. Standish
<b>J. <u>Educational Interactions</u></b>			
Tuesday, May 17	Herbert Derfelt Elementary School-Energy - Field Trip to Yucca Mountain Science Center	Las Vegas, NV	J. Sizemore M. d'Ouille
Tuesday, May 17	Tomiyasu Elementary School - Native American	Las Vegas, NV	R. Arnold
Wednesday, May 18	Vail Pittman Elementary School - Energy - Field Trip to Yucca Mountain Science Center	Las Vegas, NV	J. Sizemore M. d'Ouille
Wednesday, May 18	Ruby Thomas Elementary School - Chemistry	Las Vegas, NV	B. Knipes
Thursday, May 19	Derfelt Elementary School - Native American Culture	Las Vegas, NV	R. Arnold
Thursday, May 19	Vail Pittman Elementary School - Energy - Field Trip to Yucca Mountain Science Center	Las Vegas, NV	J. Sizemore M. d'Ouille

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
<b>J. <u>Educational Interactions</u> (continued)</b>			
Thursday, May 19	Fitzgerald Prime Six School - Chemistry	Las Vegas, NV	B. Knipes
Thursday, May 19	Mathematics Across the Curriculum Workshop - Mathematics	Reno, NV	J. Blink
Friday, May 20	Valley High School - Native American Culture	Las Vegas, NV	R. Arnold
Friday, May 20	Natural Analogs	Las Vegas, NV	J. Peck
Saturday, May 21	Junior Solar Sprint Competition - Designing & Building Race Vehicle for Available Power	Las Vegas, NV	D. Kessel J. Weaver
Saturday, May 21	Natural Analogs	Las Vegas, NV	J. Peck
Monday, May 23	Derfelt Elementary School - Native American Culture	Las Vegas, NV	R. Arnold
Wednesday, May 25	Doris Hancock Elementary School - General Overview with Emphasis on Geology	Las Vegas, NV	J. Hartley
Tuesday, May 31	LESSON Teacher Workshop - Science Workshop	Nevada Test Site, NV	TBD
Tuesday, May 31	Captain Kidd's Sixth Grade - Native American Culture	Las Vegas, NV	R. Arnold

<u>Date</u>	<u>Event</u>	<u>Location</u>
<b>K. <u>Exhibits Scheduled</u></b>		
Saturday, May 21	Armed Forces Day	Hawthorne, NV
Saturday, May 21	Yucca Mountain Open House/Tour	Las Vegas, NV
Sunday- Thursday, May 22-26	American Society for Quality Control Annual Quality Congress	Las Vegas, NV
Sunday- Thursday, May 22-26	International High-Level Radioactive Waste Management	Las Vegas, NV
Friday- Monday, May 27-30	Jim Butler Days	Tonopah, NV

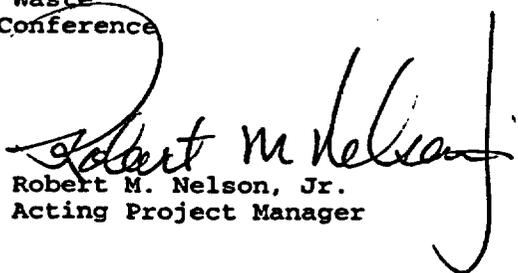
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Daniel A. Dreyfus

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
L. <u>Tours Scheduled</u>		
Tuesday, May 17	Active Adult Tours	TBD
Thursday, May 19	Western High School	TBD
Thursday, May 19	White Pine County	TBD
Friday, May 20	Nye County Nuclear Waste Repository Office	TBD
Saturday, May 21	Public Open House (P)	Various Escorts
Monday, May 23	American Society for Quality Control Conference	TBD
Tuesday, May 24	French Radioactive Waste Management Agency	TBD
Tuesday, May 24	Daniel Dreyfus	TBD
Tuesday, May 24	Brinley Middle School	TBD
Wednesday, May 25	Meadows School	TBD
Thursday, May 26	Study Committee	TBD
Thursday, May 26	Garrett Middle School	TBD
Friday, May 27	International High-Level Radioactive Waste Management Conference	TBD

AMSL:CLH-3593

  
Robert M. Nelson, Jr.  
Acting Project Manager