



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: Paul T. Prestholt and John W. Gilray
Sr. On-Site Licensing Representatives

DATE: July 15, 1992

SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR
THE WEEK ENDING JULY 3, 1992

Please find enclosed the above-referenced reports.

There is nothing requiring specific management attention in
the reports.

nan

cc: w/encs.: Charlotte Abrams, M/S 4 H 3
Rosetta Virgilia, M/S 3 D 23
Dean Kunihiro, Region 5

9207210341 920715
PDR WASTE PDR
WM-11

NH16 y1
102
WM-11



Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.2
QA: N/A

JUL 13 1992

John W. Bartlett, Director, Civilian Radioactive Waste Management,
HQ (FW-1) FORS

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
JULY 3, 1992

A seismic event occurred at 3:14 a.m. PDT on June 29, 1992. The earthquake was measured at magnitude 5.6 on the Richter scale. The epicenter of the event has been placed at latitude 36.718° north and longitude 116.289° west, although refinements are still occurring, at depth of 12 km below the earth's surface. This places the event directly beneath Little Skull Mountain, about 4 miles from the Field Operations Center (FOC). Unlike northern Nevada, the southern part of the state has been relatively free of historically strong earthquakes. Monday's event (June 29, 1992) is among the largest earthquakes known to have occurred in southern Nevada. The only larger events were magnitude 6.3 near Tonopah, 1910, and magnitude 6.0 near Caliente, 1966. Several lower level earthquakes about magnitude 5.0 have been historically recorded in southern Nevada and have been attributed to either: (1) the filling of Lake Mead, or (2) underground nuclear explosions at the Nevada Test Site (NTS).

Southern Great Basin Seismic Network instrumentation was saturated by the event due to the large size and location, but first arrivals could be read to obtain a location. A U.S. National Seismograph Network Station at Shoshone Peak, Nevada, (installed June 19, 1992) recorded the event on scale. U.S. Geological Survey (USGS) scientists have set up 10 to 15 portable seismographs to measure small magnitude earthquakes and aftershocks. These systems will be set up on Bureau of Land Management and near the epicenter of the June 29, 1992 earthquake. They will be used to help locate and determine the depth of any aftershocks. A helicopter survey was conducted by geologists to determine if there were any surface ruptures due to the earthquake. None were found.

Water level excursions were recorded by the continuously-monitored well at USW H-5. The water-level response for the June 29, 1992 earthquake was about 1.7 feet. Compare that to excursions of 1.73 feet for the 4:57 a.m. PDT June 28, 1992 earthquake in southern California and .67 feet for the 8:05 a.m. PDT June 28, 1992 earthquake.

Damage was reported at the FOC, the Hydrologic Research Facility (HRF), and Sample Management Facility (SMF). About one-third of the windows in the FOC were broken, some floor tiles buckled, and some door frames were warped, caulking on exterior cladding failed and must be replaced. HRF suffered minor damage, mostly broken lights and a few stress cracks in the walls. Damages were minor at SMF, mainly broken light bulbs and one overhead door off-track. There were no spillages of the core. The estimated cost of repair to the FOC is approximately \$900,000.

The trenches in Midway Valley were reported in good shape, with no visible slumping. The LM-300 drill rig was not affected by the earthquake, and test runs were conducted during the morning of June 29, 1992.

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

A. Site Characterization Planning

Field Operations

The Site Manager and FOC staff participated in and provided logistical support for two major tours this reporting period.

Regarding Job Package 92-5, Midway Valley Trenches and Pits, Reynolds Electrical & Engineering Co., Inc. (REECO), excavated 11 test pits. The job is complete for that portion of the test pits.

Regarding UZ-16 drilling activity with the LM-300 drill rig, REECO has cored to a depth of 118 feet and reamed to 108 feet, as of June 29, 1992. The Site Manager has borrowed a "bag house" from the Nevada Weapons Program. The "bag house" is an industrial vacuum holder, that should resolve the dust emission problem associated with the drilling. The equipment is on loan to YMP for six months.

SMF

Processing of core and cuttings from UZ-16 and NRG-1 continued. Thirteen cutting specimens were removed from UZN-53 for Los Alamos National Laboratory. Eighty-four sealed core specimens were removed from UZN-53 for USGS.

Regulatory Interactions

The Technical Advisory Committee (TAC) for the bilateral agreement between NAGRA (Swiss National Cooperative Society for the Storage of Radioactive Wastes) of Switzerland and the U.S. Department of Energy (DOE) met in Wettingen, Switzerland, June 22-25, 1992. TAC is composed of NAGRA and YMP personnel with backgrounds in geochemistry, hydrology, rock mechanics, geology, drilling technology, and performance assessment. The purpose of the meeting was for NAGRA to brief United States TAC members on the NAGRA organization, technical work in both low-to-intermediate and high-level waste disposal, and performance assessment in order to provide a sound basis for evaluating the five tasks which are part of the cooperative agreement. The testing program was discussed in detail prior to touring the low-to-intermediate site being characterized at Wellenberg, and the underground laboratory in crystalline rock at Grimsel.

Exploratory Studies Facility (ESF) Task Force Activities

The 90 percent design review status is on schedule. In addition to those in the 50 percent review, the 90 percent review is comprised of 80 drawings, 38 analyses, and 52 specifications.

<u>Drawings</u>	<u>Analyses</u>	<u>Specifications</u>
75 Through Engineering	34 Initial Draft	45 Initial Draft
72 Through Computer-Aided Draft Design	34 Final Draft	45 Final Draft
43 Through Review	22 Through Review	36 Through Review

Site Characterization Program Study Plan (SP) Status

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

STUDY PLAN BREAKDOWN

In Screening Review	0
In YMPO and Headquarters (HQ) Review	0
Awaiting Comment Resolution	12
Awaiting Author Revision	6
In YMPO/HQ Verification Audit	8
Preparing to Submit or Awaiting YMPO Approval	3
Awaiting Submission to the U.S. Nuclear Regulatory Commission (NRC)	1
NRC Phase 1 Review	13
NRC Acceptance	27
Total	70

SCP/SP Status:

Total SPs Assigned to Cover 106 Studies	103
SPs Not Yet Submitted for Review	39
SPs Submitted for Initial Review	64
Revised SPs Submitted for Review	6
Total SPs Submitted for Review	70

State of Nevada Comments Status:

Received Comments from the State of Nevada	9
Responses Transmitted to the State of Nevada	5

NRC Comments Status:

Received Comments from NRC	9
Responses Transmitted from OGD to DOE/HQ	5

JUL 13 1992

B. Project Planning and Control

Final participant cost and schedule inputs to the Mission 2001 planning exercise were received. Participant data was combined to formulate the project-level data base. Planning reports were produced from the participant data for distribution to the Civilian Radioactive Waste Management System Management & Operating Contractor (CRWMS M&O); and a project-level Cost Plan, that provides annualized costs by work breakdown structure through license application, was produced. Participant schedule data was integrated to formulate a revised Long-Range Plan/Integrated Project Schedule.

On June 30, 1992, the Independent Cost Estimating (ICE) team and YMP Project Manager made a presentation to the Office of Civilian Radioactive Waste Management (OCRWM) senior management concerning the validation of fiscal year (FY) 1994 funding request. Discussions will continue on the recommended FY 1994 funding level.

C. Quality Assurance (QA) Implementation**Determination of Importance and Grading Enhancement (DIGE)****Quality (Q) List and Q-List Procedure Development**

The draft Quality Management Procedure (QMP) 02-10 (grading procedure) was withdrawn from QMP 06-04 review. Development of the replacement procedure, QMP 05-03 (procedure application guidance), continues. Training preparations of AP 6.17Q, for use in training new Assessment Team (AT) members, continue.

Implementation

Establishment of the new AT continues, with emphasis on the selection of AT members. Technical Direction Letters to Sandia National Laboratories and Raytheon Services Nevada, which request submittal of the implementing procedures for review and approval by YMPO, are in the approval/signature cycle.

Task Management

Revision 1 of the DIGE Management Plan has been approved and is in distribution.

D. Public Outreach and Institutional Activities

A Public Open House tour of Yucca Mountain (YM), Nevada, was conducted on June 27, 1992, for approximately 225 people. Tour participants visited the Las Vegas Yucca Mountain Information Office (YMIO), the FOC, and YM.

On June 24, 1992, Carl Gertz, Project Manager, provided an update on YMP to members of the NRC in Washington, D.C.

Several activities occurred on June 30, 1992: 1) a tour of YM was provided for seven guests from the Science Applications International Corporation TAC; 2) the YM lecture series, "Geology of Southern Nevada," was presented by Jean Younker (CRWMS M&O) at the Las Vegas YMIO; and 3) A. C. Robison (YMPO) attended a workshop at DOE/HQ on Implementation Plans for DOE Points of Contact on Indian Issues.

II. ANALYSIS & VERIFICATION DIVISION

Participated in a comment resolution meeting on July 1, 1992, in Albuquerque, New Mexico. The meeting pertained to the Implementing Line Procedure 22.3.1 review for SP 8.3.1.4.3.1, "Study Plan for the Systematic Acquisition of Site-Specific Subsurface Information."

A draft evaluation was prepared regarding options for future storage of core from the Salt Repository Program, which is currently being stored at Texas Bureau of Economic Geology.

Completed review of Notice of Proposed Rulemaking on 40 CFR Parts 260, 261, 262, 264, and 268.

Review of the Center for Nuclear Waste Regulatory Analysis document, "Sorption Modeling for High-Level Waste Performance Assessment: A Literature Review," was initiated. The review will be completed by August 1, 1992.

Attended the FW-20 "ESF Construction Management Issues" presentation to DOE on June 30, 1992, in Washington, D.C.

Participated in a briefing to DOE/HQ management on results from the ICE review and FY 1994 budget breakdown for YMP on June 30, 1992, in Washington, D.C.

John Bartlett, Director of OCFWM, was briefed on the background and status of the Repository Program Convergence Process on July 2, 1992, in Washington, D.C.

III. GENERAL INFORMATION ITEMS

YMP

A QA surveillance of the Technical Requirements Documents was conducted.

Lawrence Livermore National Laboratory (LLNL)

The Science Education Workshop for Nye County, Nevada teachers, which began on June 22, 1992, was concluded on July 1, 1992, at the NTS. The workshop, which was designed to improve the quality and enthusiasm of science education in elementary and middle schools, was conducted by LLNL.

IV. 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 handled by the Speakers Bureau; contact Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are handled by Kevin Rohrer at (702) 794-7769, and tours are handled by Carleen Hill at (702) 794-7375.

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
A. <u>DOE/EQ Meetings</u>			
Wednesday, July 22	OCRWM Biweekly Seminar	Washington, DC	C. Gertz
B. <u>CRWMS M&O/DOE Meetings</u>			
Wednesday, July 15	CRWMS M&O Program Review	Vienna, VA	C. Gertz
C. <u>Internal and DOE/NV Meetings</u>			
Wednesday, July 15	NV Managers Program Review	Las Vegas, NV	C. Gertz
D. <u>NRC Interactions</u>			
Wednesday, July 22	Technical Exchange - Three-Bucket Approach	Rockville, MD	T. Bjerstedt
Thursday, July 23	Agreement on Format and Content of Yucca Mountain SPs	Rockville, MD	T. Bjerstedt
Tuesday, August 25	Technical Exchange - Resolution of Volcanism Related Concerns	Video- Conference	T. Bjerstedt
September (Tentative)	Technical Exchange - Midway Valley	LV/NTS/YM	T. Bjerstedt

JUL 13 1992

D. NRC Interactions (Continued)

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
Tuesday, September 29	Technical Exchange - Functional Analysis of 10 CFR 60	San Antonio, TX	T. Bjerstedt
Wednesday, October 28	Technical Exchange - Total System Performance Assessment	Albuquerque, NM	T. Bjerstedt
Tuesday, November 17	Technical Exchange - Volcanism	Rockville, MD	T. Bjerstedt
Wednesday, November 18	Interaction Planning Meeting	Rockville, MD	T. Bjerstedt

E. NWTRB Interactions (P)

Tuesday- Wednesday, July 7-8	NWTRB Full Board Meeting	Denver, CO	A. Simmons
Tuesday- Wednesday, October 13-14	NWTRB Full Board Meeting	Las Vegas, NV	A. Simmons
Thursday- Friday, October 15-16	NWTRB Panel on SG&G	Las Vegas, NV	A. Simmons

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
-------------	--------------	-----------------	----------------

F. State and Public Interactions

Tuesday, July 7	University of California	Santa Barbara, CA	S. Mattson
Thursday, July 16	Town Forum White Pine County	White Pine, NV	A. Robison
Tuesday, July 28	Yucca Mountain Lecture Series (P)	Las Vegas, NV	A. Flint
Wednesday, July 29	Nevada Department of Transportation	Sparks, NV	F. Standish

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
F. <u>State and Public Interactions (Continued)</u>			
Thursday, July 30	Yucca Mountain Lecture Series (P)	Beatty, NV	A. Flint
Wednesday, August 5	UNLV Alumni Center	Las Vegas, NV	C. Gertz G. Milligan
Thursday, August 6	Rotary Club of Las Vegas	Las Vegas, NV	C. Gertz
Monday, August 31	Nuclear Information & Records Management Association Symposium	San Francisco, CA	C. Gertz
Thursday, September 17	American Nuclear Society	Lynchburg, VA	C. Gertz
Monday, September 21	Emerging Technologies for Hazardous Waste Management	Atlanta, GA	C. Gertz
Tuesday, September 29	American Institute of Professional Geologists	Lake Tahoe, NV	J. Younker
Wednesday, October 7	North American Tunneling Conference	Boston, MA	C. Gertz

<u>Date</u>	<u>Event</u>	<u>Location</u>
G. <u>Exhibits Scheduled</u>		
Friday, July 17	Public Open House (P)	Las Vegas, NV
Tuesday- Wednesday, July 28-29	Department of Transportation Railroad Safety Meeting	Sparks, NV
Wednesday- Sunday, August 12-16	Nevada State Fair	Reno, NV
Thursday- Saturday, August 20-22	Nevada League of Cities	Winnemucca, NV

<u>Date</u>	<u>Event</u>	<u>Location</u>
G. <u>Exhibits Scheduled</u> (Continued)		
Saturday, August 22	Public Open House (P)	Las Vegas, NV
Friday- Sunday, September 18-20	Home Show	Las Vegas, NV
Friday- Sunday, September 18-20	Pahrump Harvest Festival	Pahrump, NV
Saturday, September 26	Public Open House (P)	Las Vegas, NV
Sunday- Wednesday, September 27-30	American Institute of Professional Geologists	Lake Tahoe, NV
<u>Date</u>	<u>Event</u>	<u>Escorts</u>
H. <u>Tours Scheduled</u>		
Wednesday, July 8	University of Georgia	TBD
Friday, July 10	UNLV Summer Camp	TBD
Monday, July 13	French Utility Officials	R. Gonzales
Friday, July 17	Public Open House (P)	Various Escorts
Wednesday, July 29	Las Vegas Review- Journal Editorial Board	G. Fisher
Friday, July 31	British Government Officials	TBD

<u>Date</u>	<u>Event</u>	<u>Escorts</u>
H. <u>Tours Scheduled</u>		
Saturday, August 22	Public Open House (P)	Various Escorts
Saturday, September 26	Public Open House (P)	Various Escorts
Saturday, October 17	Public Open House (P)	Various Escorts

YMP:VFI-4306

J. Maxwell Bland
for Carl F. Gertz
Project Manager