

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

Reply to:

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MEMORANDUM

DATE: November 13, 1989

FOR: John J. Linehan, Director, Repository Licensing and

Quality Assurance Project Directorate (HLPD), Division

of High-Level Waste Management

FROM: Paul T. Prestholt, Sr. OR - YMP

SUBJECT: YMP Site Report for the months of September and

October, 1989

I. GEOLOGY-GEOPHYSICS

A. Protype Drilling

Lang Drilling Company has moved its equipment back to Salt Lake City and is on standby until a suitable site can be found to complete the prototype drilling program. The site near Hoover Dam in Arizona proved unsuitable when water was encountered at 300 feet.

8911220308 891113 PDR WASTE PDC 102 WM-11 WH03 Since it seems unlikely that State of Nevada air quality permits will be forthcoming in the near future, YMPO is looking at the Apache Leap area in Arizona as a possible drill site. The University of Arizona is conducting hydrologic research at Apache Leap for the NRC. It has been determined that the two activities will not interfere with each other. The Apache Leap site is located approximately 100 miles east of Phoenix, Arizona.

The procurement process for the Lang LM-250 rig is continuing.

B. Surface Based Testing

In response to Admiral Watkins' requirement that the Project prioritize surface-based testing to characterize "potentially adverse conditions" (PACs) at the site the Project is instituting activities necessary to support site suitability evaluation. In the near term, this activity would identify the status of planned surface-based tests in terms of the NRC's PACs and the major areas of concern expressed by outside reviewers of the program, such as the NRC, State of Nevada, the EEI, etc.

In the long term, the project will integrate performance assessment (PA) in evaluating priorities for surface-based testing described in the SCP:

- Evaluate the relative significance of each NRC PAC with respect to waste isolation;
- Assess the feasibility of developing criteria for evaluating the significance of each PAC to site suitability:
- Identify the priorities for the performance assessment studies needed to support the evaluation of PACs and site suitability;

- Evaluate the importance of each planned test to the characterization of each PAC;
- Establish testing priorities (tests important to the characterization of the most significant PACs);
 and
- Compare priorities with the planned test sequence and schedule; identify any resequencing necessary to ensure early focus on PACs that may represent site—suitability concerns.
- C. The National Academy of Science (NAS) Radioactive Waste Management Board asked Dr. Tom Hunter, Sandia TPD, to prepare a presentation on the current status of the Project's technical activities. The presentation, given on September 22, was an overview of hydrology, seismic hazard, tectonism, volcanism, and repository operations. Dr. Bruce Crowe, LANL; Dr. Jerry King, SAIC; and Dr. Bill Dudley, USGS assisted.
- D. The NWTRB is scheduled to conduct a meeting on tectonism on November 20-21. A helicopter tour of the Yucca Mountain vicinity will be conducted by Dr. Clarence Allen, NWTRB.

 D. Allen is chairman of the NWTRB panel on structural geology and geoengineering. Participation is by invitation and those scheduled to go are: From the TRB, Dr. Don Deere, Dr. Clarence Allen, Dr. Warner North; From DOE, Dr. David Dobson; From LANL, Dr. Bruce Crowe; From UNLV, Dr. Gene Smith.
- E. A three day tectonics meeting and field trip was held on October 31, November 1 and 2 in Las Vegas, Nevada. Attending were representatives of the DOE and DOE contractors and participants, the NRC, the State of Nevada, the NWTRB (Dr. Clarence Allen), and representatives of Local Government. The discussions were informal and frank. The NRC staff has a better understanding of the Project's tectonic model(s) and what the Project means when they use the term "detachment fault".

- F. During the week of October 23-27, the USGS held a retreat in Death Valley on "Earth-Science Investigations for the Yucca Mountain Project". A copy of the agenda is enclosed. Note that Dr. Dallas Peck attended and stayed for the entire meeting.
- G. Enclosed is a copy of a booklet put out by the "Nevada Bureau of Mines and Geology, the UNR Seismological Laboratory, and the Nevada Division of Emergency Management". The booklet is titled "Earthquakes in Nevada, and How to Survive Them". This is a subject of great topical interest at the moment.
- II. HYDROLOGY There are no new activities to report.

III. GEOCHEMISTRY

Enclosed is a copy of the September LANL project status report.

IV. REPOSITORY ENGINEERING

A. During the October Project Manager-TPO meeting, a strategy for the review of alternatives for the layout of the underground test facility of the ESF was discussed. From the handout:

EVALUATION ON UNDERGROUND TEST FACILITY

Purpose

- Review alternatives for the layout of the underground test facility.
- Review the strategy for conducting underground tests.
- Review the method for constructing the underground facility.
 Responsibility:
 - ♦ The Project Office will lead the evaluation under a QA program that meets the requirements of 10 CFR 60, Subpart G. Headquarters will conduct "management assessments" of the progress and may conduct a technical review of the assembled report.

THE EVALUATION WILL CONSIST OF A NUMBER OF RELATED TASKS:

- Task 1: Identify applicable requirements and existing comments and concerns.
- Task 2: Quantify the applicable requirements.
- Task 3: Verify information that will constitute the design input.
- Task 4: Review previously conducted evaluations of alternative underground configurations, testing strategies, and construction methods.
- Task 5: Identify a broad set of viable configurations, testing strategies, and construction method options to be formally evaluated.
- Task 6: Develop the detailed methodology for conducting the formal evaluation.
- Task 7: Conduct the evaluation.
- Task 8: Compile a report documenting the results of the preceding tasks and conduct a technical review of the report prior to finalization.

FACTORS TO BE CONSIDERED IN THE EVALUATION

- Potential impacts on the ability of the site to isolate waste.
- Potential impacts on radiological and nonradiological health and safety.
- Ability to perform tests and obtain representative data needed to design the repository and conduct performance assessments.
- Flexibility to conduct new testing not previously identified or described in the SCP.
- Flexibility to modify the configuration, construction methods, or testing strategy after construction has begun.
- 6. Potential for construction-to-testing interference, operations-to-testing interference, and testing-to-testing interference.
- Compatibility with repository design requirements and conceptual repository design.
- 8. Necessity for prototype testing or surface-based testing prior to design or construction.

- Technical feasibility and engineering considerations including the risks associated with using state-of-art technology.
- 10. Ability to conduct routine operations (e.g., transporting personnel, conducting investigations).
- 11. Impacts on the costs and schedules related to both the underground test facility and a repository.

CONCERNS THAT SHOULD BE RESOLVED PRIOR TO INITIATING THE EVALUATION

- 1. The Project Office to develop an implementation plan which will be formally reviewed and approved (for QA reasons).
- A mutually agreed upon schedule will be established for conducting the tasks of the evaluation.
- 3. It should be determined if the compatibility of the underground test facility should be constrained by the existing repository design concepts.
- 4. It should be determined if quantification of requirements and finalization of requirements documents will be necessary.
- B. Fenix and Scisson of Nevada (FSN) reported that the Title II design of the ESF underground facility is progressing well. A management review has been held where DOE and participants reviewed 38 general arrangement drawings related to the ESF and 4 related to the underground facilities. There are 27 design specifications and 15 design analyses currently in progress.

It is still understood by this office that the review that will include NRC and State of Nevada participation will be held in January. It is recommended that the NRC staff participate in this review of these design packages even though there will probably be major changes in the ESF design over the next few years.

- C. Sandia National Laboratory has completed some work with Parsons, Brinkerhoff, Quaid and Douglas (PBQ&D) on using tunnel boring machines to mine the repository. A layout has been drawn up that provides for the same features as conventional mining but cuts the active faces from 11 to 2, saving time and money. This work is preliminary; no official reports have been produced yet. The project feels that tunnel boring is very site specific and some prototype testing will be required to determine the validity of the idea. SNL has already prepared some approaches. It has been suggested that this topic may lead to an NRC-NWTRB meeting for in-depth discussions.
- D. It is likely that both "G" tunnel and Climax will be closed permanently in the near future. All activities, other than those controlled by YMPO, have left "G" tunnel; therefore all costs associated with "G" tunnel must now be paid by YMPO. Because of recent budget cuts, the closing of "G" tunnel is inevitable.

V. LICENSING AND DOE-NRC INTERACTIONS

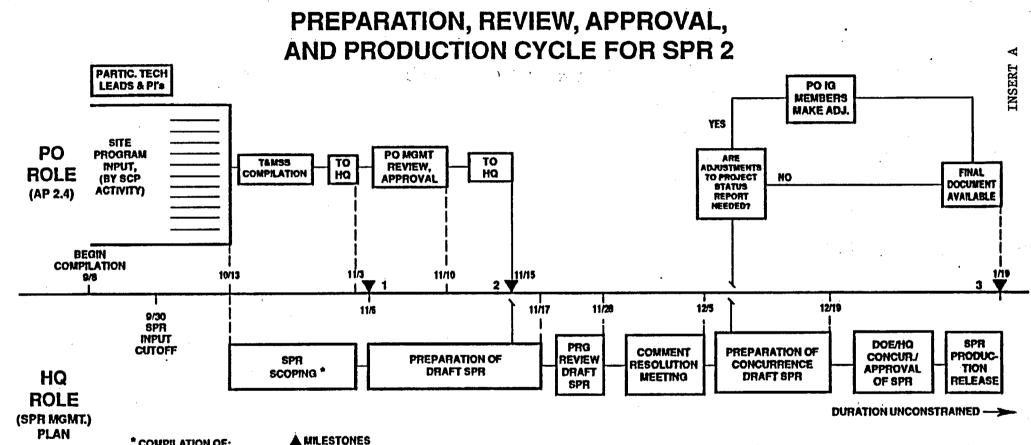
- A. Project update meetings between the DOE and Nevada Citizens were held on September 25, 26, and 28 in Pahrump, Henderson and Carson City, Nevada. As has been true in past Project update metings, the anti-repository rhetoric far outweighed any positive sentiments. As in past meetings, many of the same people attended, many of whom used this opportunity for comment to editorialize against anything and everything nuclear. As had been the case in every meeting of this type, there was great ignorance of the technical issues displayed by the commenters.
- B. The first Semiannual Progress Report (SPR) is waiting for the Secretary's signature and release by DOE-Hq. Insert A is the schedule for the next SPR.

* COMPILATION OF:

SCHEDULE DATA

SPR BIBLIOGRAPHY

EXECUTIVE OVERVIEW PREPARATORY ACTIVITIES



1 - PRELIMINARY DRAFT LETTER REPORT

2 - PO APPROVED LETTER REPORT TO HO

3 - FINAL PROJECT STATUS REPORT AVAILABLE

- C. NWTRB-DOE-YMP meetings are scheduled as follows:
- ♦ December 12 and 13 Full board, possibly in Las Vegas.
- January 18 and 19 Panel (?) at LLNL to discuss Waste Package Materials and Designs. John Gilray and I plan to attend.

D. Performance Assessment (PA)

Insert B is a memo to Hilary J. Rauch, Manager Chicago Operations Office from Ralph Stein and Carl Gertz discussing the PA program planned for FY 90.

E. <u>Technical Data Bases</u>

Ms. Jackalie Blue, SAIC, gave a presentation on the "Project Management Information System" (ProMIS) during the October TPO meeting. Ms. Blue stated that ProMIS is a system designed to improve the efficiency of the Project information management systems and reduce redundancy between systems. The first step in developing ProMIS is to produce an "Information Management System Plan (IMSP). The IMSP includes the following:

- Information Resources Management (IRM) resources baseline
- ♦ IRM long range plans
- IRM work authorization
- ♦ Status report and reviews
- ♦ IRM change control
- ♦ IRM quality assurance
- IRM program reviews

memorandum

DATE: OCT 0 3 1989

REPLY TO RW-30

SUBJECT: Participants and Responsibilities for FY 1990 Performance Assessment Program

TO: Hilary J. Rauch, Manager Chicago Operations Office

Passage of the Nuclear Waste Amendments Act of 1987 focused the geologic repository program on the Yucca Mountain site in Nye County, Nevada. During the 1989 fiscal year (FY), the geologic repository performance assessment (PA) program was reviewed and activities were conducted to ensure that PA efforts are focused on the technical and regulatory concerns associated with the Yucca Mountain site. This review was directed to ensure that all essential PA activities are underway or planned, and that areas of overlap are identified and either justified or eliminated.

As a result of this review, a number of changes are now being implemented in the PA program. First, the PA efforts in FY 1990 will be focused on the following sets of activities:

- 1) Performance Assessment Calculational Exercises (PACE).
 The PACE exercises for FY 1990 were developed by the PA
 Working Groups (WGs) during FY 1989 and were defined to help
 identify gaps in the current PA capabilities of the program
 participants, to focus development in selected PA areas, and
 to specify sensitivity analyses to support specific site
 characterization and design evaluations.
- 2) Long-term development of PA codes and models.

 These activities are needed to support out-year milestones such as the Safety Analysis Report and the Environmental Impact Statement.
- 3) Support to FY 1990 technical activities.
 A number of program site characterization, design, and regulatory activities and initiatives will require that PA analysis be conducted. For example, performance assessment support will be needed for the evaluation of potentially adverse conditions at the site for the prioritization of surface-based testing and will be needed for alternative design features analysis to be conducted in FY 1990. PA activities and resources will be directed and coordinated to provide this support.

The second change is a consolidation and reorganization of PA participants. Enclosure 1 lists the participants in FY 1989 and lists the Yucca Mountain Project (YMP) participants and OCRWM contractors who are expected to contribute to these PA efforts in FY 1990. Both YMP and OCRWM participants will be participating in the PACE-90 exercises and in the long-term development activities in order to develop capabilities for the evaluations to be conducted in the future years and oversight of these evaluations. With respect to the support to FY 1990 site characterization, design, and regulatory activities, the analyses will be conducted by the YMP participants and the OCRWM contractor role will be to support OCRWM's PA oversight and review function.

Replanning efforts will be conducted at YMPO and OCRWM in the near future to ensure that the FY 1990 PA activities are prioritized and implemented according to this guidance. Specific PA activities and expected roles and levels of effort for the activities will be described in the Performance Assessment Implementation Plan (PAIP) and in guidance to the participants early in FY 1990.

The FY 1990 PA efforts will be directed by the PA Program Review Group which consists of OCRWM and YMPO Division Directors and Branch Chiefs responsible for PA. The activities in specific areas (i.e., total system performance assessment, engineered barrier system performance assessment, natural barriers performance assessment, and preclosure safety assessment) will continue to be coordinated by the PA WGs. The leadership of each WG will now be the responsibility of the Yucca Mountain Project Office (YMPO). OCRWM will continue to be represented on each WG as part of its oversight function. The PA Technical Integration Group (TIG) will continue to support OCRWM and YMPO in an integration and advisory role.

Ralph Stein

Associate Director for Systems Integration and Regulations

aloh Stein

Carl P. Gertz, Project Manager Yucca Mountain Project Office

Enclosure

Enclosure 1

PARTICIPANTS IN OCRUM AND YUCCA MOUNTAIN PROJECT PERFORMANCE ASSESSMENT PROGRAMS

FY 1989

FY 1990

Yucca Mountain Project

Sandia National Laboratories¹ Lawrence Livermore National Laboratories

Sandia National Laboratories¹
Lawrence Livermore National
Laboratories
Lawrence Berkeley National
Laboratory²
Oak Ridge National Laboratories³

PA support: Los Alamos National Laboratory⁴ U.S. Geological Survey⁵ PA support: Los Alamos National Laboratory⁴ U.S. Geological Survey⁵

OCRWM

Argonne National Laboratory
Brookhaven National Laboratory
CER
Los Alamos National Laboratory
Lawrence Berkeley National
Laboratory
Lawrence Livermore National
Laboratory
Oak Ridge National Laboratory
Office of Waste Technology
Development/Battelle
Pacific Northwest Laboratory
University of California,
Berkeley
RE/SPEC
Sandia National Laboratories

Argonne National Laboratory⁶
Pacific Northwest Laboratory⁷

For FY 90: Includes Organization 6310 (Tom Hunter, Department Manager) and Organization 6410 (Dirk Dahlgren, Department Manager); Also includes subcontracts with Disposal Safety, Inc., Lawrence Berkeley National Laboratory, Bechtel National, Inc.

Contract directed through the Yucca Mountain Project Office starting FY 90

Ontract directed through the Yucca Mountain Project Office starting FY 90 Los Alamos National Laboratory will continue to provide support to the

Performance Assessment Program

5 U.S. Geological Survey will continue to provide support to the Performance Assessment Program

⁵ U.S. Geological Survey will continue to provide support to the Performance Assessment Program; Support includes subcontract with Lawrence Berkeley National Laboratory

Argonne National Laboratory includes RE/SPEC, Univ. of Minnesota, FY 90
 Pacific Northwest Laboratory includes Univ. of California, Berkeley, FY 90

Step two involves requirements determination, analysis, and design of the ProMIS. This step will take approximately 15 months to complete. Step two can be broken down into 3 phases. Insert C describes the 3 phases included in step two. Successful implementation of ProMIS will require approval of the IMSP and the "Software QA Plan". The resources necessary to accomplish this task have been promised by YMP management.

One aspect of ProMis could be a problem. The data cutoff date for inclusion is 1987. This means that the bulk of technical data acquired by the Project will not be included. At this time, inclusion of the pre-1987 data (and QA qualification of this data) does not have a high priority. I've had several meetings with YMPO personnel concerning this activity and will continue to monitor it.

- F. Insert D is the preliminary draft of the calendar of planned interactions with the NRC for the period January 1990 to June 1990.
- G. Enclosed is a copy of a memo from Paula Austin, SAIC to Mike Glora and Sue Volek, SAIC titled "Monitored Retrievable Storage (MRS) Commission Recommendations". For your information.
- н. Enclosed are two issues of a new publication called "LINK". In the October issue there is an article critical of the Yucca Mountain Project that is full of false statements. such statement is that "Yucca Mountain itself is an old volcano". This statement, among others, is attributed to Judy Treichel, executive director of the Nevada Nuclear Waste Task Force (NNWTF). The NNWTF was formed by the State of Nevada to disseminate factual information about the Yucca Mountain Project to the Citizens of Neveda. I asked Mrs. Treichel about this quote and she told me she had said no such thing and that the piece was full of errors. The November issue contains a rebuttal to the October article by Joy Fiore, Public Information Chairperson, American Nuclear Society and Robert C. Dickinson, Co-Chairman, Nevada Nuclear Waste Study Committee.

IRM CHANGE CONTROL IRM WORK AUTHORIZATION IRM BASELINE PHASE 3 PHASE 2 PHASE I SYSTEM DESIGN REQUIREMENTS DEFINITION 4 MONTHS 9 MONTHS SIEKIANA DATABASE SOFTWARE INFORMATION IMPLEMENT BACKGROUND GATHERING AND DESIGN DESIGN AND ASSESSMENT RULES MONTHS 1-2 MONTHS 2-4 RIEKIANA MONTHS 1-2 PLANNING MONTHS 7-9 MONTHS 2-6 ONGOING SOFTWARE LIFE SOFTWARE CYCLE MANAGEMENT DEVELOPMENT PROJECT OFFICE REVIEWS

ENGINEERING

CALENDAR OF PLANNED INTERACTIONS (JANUARY 1990 - JUNE 1990)

10/6

i i	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
FORMAL INTERACTIONS TECHNICAL	•	REPOSITORY SEALING	•		EXPERT JUDGEMENT				•
• MANAGEMENT				INTERACTIONS MEETING TO PLAN FOR					
TECHNICAL EXCHANGES INTEGRATION WITH REGULATIONS	GWTT		CONSTRUCTION OF CCDF	THE NEXT SIX MONTHS	SCENARIO DEVELOPMENT	MODEL VALIDATION			
		PERFORM ASSESSA	ANCE IENT	EBS MODEI (INCLUDING C/ 14 RELEASE	ARBON-				
• SURFACE & UNDERGRND TESTING	CALCITE/ SILICA	TAR ON THE GEOPHYSICAL ANOMALY	TECTONICS 10 K YR. EARTHQUAKE	SZ TESTING	UZ TESTING (CALICO HILLS)	NATURAL RESOURCES			ļ.
• ESF/REPOS. DESIGN &		ANUMALI	·	Δ		PRE	LIMINAR'	Y DRAFT	
		•	WASTE PACKAC	ar in-siiu testi	ng Program				

YMPROA5P.A05/10-6-89

I've included these publications to give you an idea of the kind of information the public is getting. Many people now choose to believe Yucca Mountain is an "old volcano".

VI. STATE OF NEVADA INTERACTIONS

A. The State of Nevada has suggested that, under the provisions of A.B.222 (making it unlawful for high level nuclear waste to be placed in Nevada), it would be improper to grant permits for any activities that might eventually lead to the building of a repository in Nevada. It is expected that the constitutionality of A.B.222 will be tested in the courts.

The State of Nevada has vetoed the repository. Joint Resolutions AJR 4 and 6 were passed and sent to the U.S. Congress. The Attorney General, Brian McKay, has issued an opinion stating that the veto is legal. Governor Miller has stated that the repository is legally dead.

- B. DOE is still negotiating a cooperative research agreement with the University system. Dr. Robert Maxon, UNLV president considers the issue one of academic freedom. There is strong political resistance to the University accepting research grants and the public is split on the matter. Enclosed are some documents giving a flavor of the controversy.
- C. In a letter to the editor of the Las Vegas Review

 Journal, Elspeth Whitney, a member of the Public Citizen,

 Critical Mass Energy Project, of Washington, D. C. states that:

"The Nuclear Regulatory Commission predicts that even without human error there will be a truck accident severe enough to release radioactive contents every 8.7 years."

A copy of the letter is enclosed.

VII. GENERAL

Meetings attended:

- ♦ September 12, meeting with Carl Gertz
- September 12, meeting with Dave Dobson
- ♦ September 9-10-11, Focus '89 Meeting, American Nuclear Society
- ♦ September 12, meeting at YMP with John Trapp
- September 26, meeting with John Robson with John Peshel
- ♦ September 27, trip to "G" tunnel with John Peshel
- September 28, meeting with Leo Little and John Robson
- October 3, meeting with Russ Dyer, YMPO about tectonic field trip
- ♦ October 4, meeting with Carl Gertz
- October 4, meeting with Marta Brown, Clark County Nuclear
 Waste librarian
- ♦ October 16-20 at NRC-Hq, Rockville, MD
- ♦ October 24, meeting with Leo Little
- ♦ October 24, meeting with Carl Gertz
- ♦ October 25, meeting with Carl Gertz
- ♦ October 30, meeting with Carl Gertz
- ♦ October 31, 1st day of tectonics meeting

There are no new issues that this office has identified that have not been brought to management's attention.

cc: With enclosures: K. Stablein, M/S 4 H3, R. Adler, J. E. Latz Without enclosures: C. P. Gertz, R. E. Loux, M. Glora, G. Cook,

- D. M. Kunihiro, K. Turner, R. E. Browning, M/S 4 H3;
- R. Bernero, M/S 6 A4; H. Thompson, M/S 17 G21;
- H. Denton, M/S 17 F2; S. Gagner, M/S 2 G5;
- L. Kovach, M/S NLS260

Enclosures: Agenda (USGS Retreat on Earth-Science Investigations for the Yucca Mountain Project, 10/23-27/89); Activities
Necessary to Support Site-Suitability Evaluations; Evaluation on Underground Test Facility; Upcoming Nuclear Waste Technical
Review Board Meetings; Dada Qualification Policy for ESF Title II
Design Activities (Draft); "A comprehensive Project Information
System" (Draft); Control and Distribution of Technical Data by
Blanchard; Whitney article; 9/7/89 release, Nevada Universities
Jeopardizing Over \$22 Million in Research Funds and Chance for
National Recognition; Agenda/Info, 9/26/89 Project Update
Meeting; LANL September Project Status Report; Monitored
Retrievable Storage (MRS) Commission Recommendations (Austin to
Glora/Volek); Interactions with the NWTRB and its Consultants
(Memos); TPO Presentation by Gertz 10/6/89; SEPDB Quarterly
Report, 7/89; Earthquakes in Nevada and How to Survive Them

J.J. Linehan only: The Southern Nevada LINK (Oct., Nov.)

VIII.50 N RHIW (h) 9/14/2:

PRELIMINARY TECHNICAL PROGRAM (9/12/89)

"USGS Retreat on Earth-Science Investigations for the Yucca Mountain Project"

Furnace Creek Ranch Resort, Death Valley, CA October 23-27, 1989

Tuesday, October 24

0800-0900 Introductory Session (Auditorium)

- o Introductory Comments -- Bill Wilson/Larry Hayes
- o Welcome -- Dallas Peck
- o Keynote Address: "Yucca Mountain as a repository -- neither myth nor millennium!" -- Ike Winograd

General Technical Session I (Auditorium) 0900-1140 (Moderator: Bill Wilson)

- Rogers, A. M., Harmsen, S. C., and Bufe, C. G.: Selected 0900-0920 Characteristics of Seismicity in the Southern Great Basin of Nevada-California.
- 0920-0940 Bufe, C.: Caldera Control on Seismicity in the southern Great Basin.
- . 0940-1000 Oliver, H. W., Kirchoff-Stein, K. S., Langenheim, V. E.: Magnetic investigations of the location and volume of buried basalt cones and flows.
 - 1000-1020 **BREAK**
 - 1020-1040 Anderson, R. E.: Comment on Hazard Associated with Synvolcanic Faulting and Subvolcanic Intrusion.
 - Evans, J. R., Smith, Moses, III: Teleseismic Tomography of the -1040-1100 Yucca Mountain Site Area and Region.
- 1100-1110 Hoxie, D. T.: Alternative Conceptual Models for Moisture Flow in the Unsaturated Zone at Yucca Mountain.
 - Czarnecki, J. B.: Preliminary Simulations Related to a Large 1120-1140 Hydraulic Gradient at the North End of Yucca Mountain, Nevada.
- Theme Session I: "Influence of geologic structure and tectonics on hydrology, Yucca Mountain area" (Auditorium) (Organizer: Devin Galloway) (Moderator: Ken Fox)

- Fox, K. F., Jr., and Spengler, R. W.: Potential Effects of Low-angle Extensional Faulting on the Hydrology of Yucca 1300-1330 and Mountain The contest was tractined and the sold of the sold of
- Carr, W. J.: Hydrogeology of two areas east 1330-1305 of Death Valley: Devils Hole, Nevada, and Furnace Creek, California ·
- Galloway, D.: Strain Induced Water-Level Responses in Selected 1350-1410 Wells in the Vicinity of Yucca Mountain, Nevada
- 1410-1430 Dudley, W. W., Jr.: Significance of Hydrologic and Geothermal Anomalies in Assessing Effects of Tectonism

1430-1450 BREAK 1450-1510 Majer, E. L., Peterson, J. E., and Daley, T. M.: VSP and Cross-Hole Tomographic Imaging for Fracture Characterization 1510-1530 Karasaki, K., Galloway, D., and Geldon, A.: Building of a

Conceptual Model at UE25-c Hole Complex

1530-1550 Weeks, E. P.: Influence of Geologic Structure on Recharge in Upland Areas

1550-1700 Panel and Audience Discussion:

✓ Ken Fox, Moderator

? Jack Healy

Paul Hsieh

✓ Walter Mooney

✓ John Sass

1930-2030 After-Dinner Guest Speaker: "Crustal Extension in the Death Valley Region" -- Warren Hamilton (Breakfast Canyon)

Wednesday, October 25

0820-1140 General Technical Session II (Auditorium)

(Moderator: Chuck Bufe)

0820-0840 Healy, J. H.: Laboratory Measurements on Rock Friction and Their Implication for the Stability of Yucca Mountain Rocks.

0840-0900 Harden, J., Taylor, E., Reheis, M., Shroba, R., McFadden, L., and Sowers, J.: Quaternary dating by soil development: strengths, weaknesses, and priorities.

0900-0920 Reheis, M. C.: Late Cenozoic Motion on the Northern Part of the Furnace Creek Fault Zone.

0920-0940 Shroba, R. R., Whitney, J. W., Taylor, E. M., and Fox, K. F., Jr.: Quaternary Movement on North-trending Faults at Yucca Mountain, Nevada

0940-1000 Whitney, J. W., Muhs, D. R., Shroba, R. R., and Fox, K. F., Jr.: Quaternary Movement on the Paintbrush Canyon Fault -- Preliminary Results.

1000-1020 BPEAK

Taylor, E. M.: General Geologic History of the Bow Ridge Fault 1020-1040 Interpreted from Exposures in Trench 14, Yucca Mountain, Nevada.

1040-1100 Simonds, F. W.: Hot-Spring Deposits at the Calico Hills.

Klein, D. P., and Hardin, E.: Relationships between Electrical 1100-1120 Resistivity and Geology in the Yucca Mountain Area, Nevada.

1120-1140 Kumar, S., Bodvarsson, G. S., and Kwicklis, E. M.: Fractal Study of Fracture Roughness and Aperture Distribution.

The Land Control Informal field trips or free time

Poster Session (Marquez Room, Furnace Creek Ranch Inn) 1630-1830 (Organizer: Zell Peterman)

Dixon, G. L., Schmidt, D. L., Guth, P. L., Hoover, D. B., and Pierce, H. A.: Geologic Investigations for Ground-Water

Resources -- Southern Nevada Carbonate Terrane Study. Harrill, J., and Others: Summary Information on Selected Hydraulic

Properties of Nevada's Carbonate-Rock Aquifers.

Selected Hydra

Schools, D., Settinger, M., Leeger, D., and

Linie, T.: 2

Panel #1

- 3 Sinton, P. O., Kolm, K. E., and Downey, J. S.: Lineament/Fracture Zone-Controlled Conceptual Model of Regional Ground-Water Flow in southern Nevada and California.
- 4 Anderson, R. E. and Barnhard, T. P.: Influence of Structure on Paleohydrology and Drainage Alinements in Eastern Nevada and Western Utah at Latitude 37°30'N.
- ter
- Gutentag, E. D., Forester, R. M., and Downey, J. S.: Ostracodes as a Source of Quantitative Paleohydrologic and Paleohydro-environmental Information.
- 6 Luckey, R. R., Galloway, D. L., Swolfs, H. S., Lobmeyer, D. H., Sullivan, M. S., Gemmell, J. M., and O'Brien, G. M.: Water-Level Monitoring as an Aid to Characterizing Yucca Mountain.
- 7 Savard, C. S.: Water-level and quality data to support the boundary between the Oasis Valley and the Alkali Flat-Furnace Creek Ranch ground-water flow systems.
- 8 Marvil, J. D., Boughton, C. J., Kwicklis, E. M., Doty, S. G., and Thamir, F.: Prototype Drilling, Air-Injection Tests, Instrumentation and Data Acquisition for the Exploratory Shaft Percolation _ Test.
- 9 Chornack, M. P. and Marvil, J. D.: Perched-Water Prototype Testing: Drilling, Instrumentation, and Preliminary Hydrologic Analyses.
- 10 Chen, Z., Zimmerman, R. W., Bodvarsson, G. S., and Witherspoon, P.A.: The Effect of Air Flow on Water Absorption in Unsaturated Porous Media.
- 11 Higgins, J. D., Mower, T. E., Yang, I. C.: Pore-Water Extraction from Unsaturated Tuffs by Compression Methods.
- 12 Rousseau, J. P., and Thordarson, W.: Thermodynamics Processes of Liquid and Vapor Movement in the U12g.12 Drift Extension, G-Tunnel, Nevada Test Site.
- Diehl, S. F. and Chornack, M. P.: Diagenetic Alteration in "Bedded Tuffs", Yucca Mountain, Nevada: Effects on Porosity and Permeability.
- Zielinski, R. A., Bush, C. A., Spengler, R. W., and Szabo, B. J.: Site characterization using the distribution and mobility of uranium in ash-flow tuffs, Yucca Mountain.
- 15 Spengler, R. W. and Peterman, Z. E.: Element Mobility in the Miocene Tuffs at Yucca Mountain, Nevada.
- 16 Taylor, E. M. and Shroba, R. R.: Morphology of Secondary Carbonate and Opaline Silica in Soils of Different Ages at the Nevada Test Site, Nye County, Nevada.
- 17 Whelan, J. F., and Stuckless, J. S.: Reconnaissance δ¹³C and δ¹⁸O

 Data from Trench 14, Busted Butte, and Drill Hole G-4, Yucca

 Mountain, Nevada Test Site.
- 18 Wu, S. S. C.: Topographic Mapping and Digital Terrain Model of the the Yucca Mountain Region.
- 19 Turner, A. K. and Downey, J. S.: Potential Applications of Three-Dimensional Geoscientific Mapping and Modeling Systems to the Yucca Mountain Project.
- 20 Jayko, A., and Guth, P.: Geology of the Pahranagat Area, Nevada.
- 21 Myers, W. B., Spengler, R. W., and Fox, K. F., Jr.: Neotectonics and Low-Angle Extensional Faulting at Yucca Mountain and Vicinity, Nevada.

- ? 22 Zigler, J. L.: Age of Detachment Faulting in the Northwest Spring Mountains, Nevada.
 - 23 Gombert, J.: Seismic Network Configuration, Earthquake Hypocenter Determination; A Re-evaluation and New Approaches to Old Problems.
 - 24 Nelson: Well logs from 40 boreholes at Yucca Mountain -- log plots, cross sections, and correlations.
 - 25 Sikora, R. F. and Oliver, H. W.: Status of aeromagnetic survey coverage and major anomalies near Yucca Mountain.
 - Ponce, D. A. and Oliver, H. W.: New Bouguer and Isostatic Residual Gravity Maps of the Nevada Test Site, Nevada and Their Structural and Hydrologic Applications.
 - 27 Blank, R.: Structural Configuration of Las Vegas Valley and Vicinity from Potential-Field Data.
 - 28 Hardin, E., and Klein, D.: Relationships Between Electrical
 Resistivity and Geology in the Yucca Mountain Area: Pt. II.
 Case Studies -- Some Possible Interpretations of Geoelectric Data.

Thursday, October 26

0820-1140 General Technical Session III (Auditorium)

(Moderator: Ed Kwicklis)

- 0820-0840 McKinley, P.: Surface Water Hydrochemistry in the Yucca Mountain Area, Nevada
- 0840-0900 Marshall, B. D., Peterman, Z. E., Futa, K., Stuckless, J. S.,
 Mahan, S. A., Downey, J. S., and Gutentag, E. D.: Origin of
 Carbonate Deposits in the Vicinity of Yucca Mountain, Nevada:
 Preliminary Results of Strontium Isotope Analyses.
- 0900-0920 Lewis-Russ, A., Langmuir, D., Yang, I. C.: Applicability of Simple and Complex Models to Tracer Adsorption in Water-Rock Systems.
- 0920-0940 Trautz, R. C.: Determination of Unsaturated Zone Permeability and Storativity Using in situ Gas Injection Tests.
- 0940-1000 Zimmerman, R. W., Bodvarsson, G. S., and Kwicklis, E. M.:

 Absorption of Water into Unsaturated Blocks of Topopah Spring
 Welded Tuff.
- 1000-1020 BREAK
- 1020-1040 Nelson, P. H., Muller, D. C., Schimschal, U., and Kibler, J. E.:
 Well Logs from 40 Boreholes at Yucca Mountain -- Geological and
 Hydrological Applications.
- 1040-1100 Weeks, E. P.: Convective Airflow in Open Boreholes at Yucca Mountain, Nevada -- Physical Considerations.
- 1100-1120 Thorstenson, D. C.: Convective Airflow in Open Boreholes at Yucca Mountain, Nevada -- Geochemical Considerations.
- 1120-1140 Yang, I. C.: Hydrochemical Evidence of Lateral Flow in Top 106m

 7-0-17-0 Thime of Unsaturated Zone at Yucca Mountain, Nevada.1300-1600 Theme
 Session II: "Relation between Climate and Hydrology, Yucca

Mountain Area: Paleo, Present, and Future"
(Organizer and Moderator, Bill Steinkampf)
(Auditorium)

- 1300-1305 Introduction -- Bill Steinkampf, Moderator
- 1305-1325 Forester, R. M.: Climate-Hydrologic-Paleontologic Relationships and Probable Records.

	Geobotanical Relationships of Plant Communities in the Vicinity of Yucca Mountain and the Amargosa Desert.
1345-1405	Riggs, A., and Claassen, H.: Authigenic Soil Minerals as a Check on Arid-Zone Paleoclimate Scenarios.
1405-1420	Panel Discussion and Audience Participation ** Dave Broxton ** Jennifer Harden ** Don Thorstenson ** Tke Winograd ** Jim Yount
1420-1440	Szabo, B. J.: Dated Travertine Deposits in Eastern Grand Canyon (Arizona) Indicate Several Intervals of Wetter-Than-Modern Conditions During the Pleistocene.
1440-1500	Muhs, D. R., Whitney, J. W., Shroba, R. R., and Bush, C. A.: Uranium-Series Dating of Secondary Carbonates Near Yucca Mountain, Nevada: Applications to Tectonic, Paleoclimatic, and Paleohydrologic Problems.
1500-1515 1515-1535	Panel Discussion and Audience Participation BREAK

Whitney, J. W., Glancy, P., Harrington, C., and Meyer, D.:

Czarnecki, J. B.: Preliminary Simulation of Effects of Increased Recharge on the Ground-Water Flow System of Yucca Mountain and

Geomorphic Stability and Activity at Yucca Mountain.

Emerick, J. C., Alford, L. S., Talbot, W. R., and Kolm, K. E.:

Friday, October 27

1535-1555

1555-1615

1325-1345

0815-1100 <u>Summary Session</u> (Auditorium) (Moderator: Bill Wilson)

Vicinity, Nevada-California.

16,5-1700 Partl discussion and Andience participation

- o Feedback from observers/reviewers
 - -- Leslie Smith
 - -- Glendon Gee
 - -- Roger Anderson
 - -- James Drever
 - -- RAY Wildon (?)
- o Feedback from participants
- o Closing remarks

ACTIVITIES NECESSARY TO SUPPORT SITE-SUITABILITY EVALUATIONS

- PRIORITIZATION OF SURFACE-BASED TESTING TO CHARACTERIZE POTENTIALLY ADVERSE CONDITIONS (PACS)
- DOCUMENTATION OF DOE POSITION ON APPLICABILITY OF 10 CFR 960 AND IDENTIFICATION OF CRITERIA TO BE USED IN ASSESSING SITE SUITABILITY
- DEFINITION PROCESS TO BE USED TO EVALUATE SITE SUITABILITY BASED ON THE CRITERIA IDENTIFIED

PRIORITIZATION OF SURFACE-BASED TESTING

NEAR-TERM

- IDENTIFY STATUS OF PLANNED SURFACE-BASED TESTS CORRELATED WITH:
 - NRC'S POTENTIALLY ADVERSE CONDITIONS (PACS)
 - MAJOR AREAS OF CONCERN EXPRESSED BY OUTSIDE REVIEWERS (NRC, STATE, EEI)

TABLE 1

MAJOR CONCERNS		POPRINTERLEY BROTHER COMPTERS		
	123456789	8 9 0 1 2 3 4 5	3 4 5 6 7 6 9 0 1 2 3	1 2 2 2 2
NRC		-		
• •				
• •				
ERI				
• •				
• •		•		
State of Neveda				
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TABLE 2

BCP STUDY	BRIEF DESCRIPTION OF STUDY	STATUS OF STUDY	PAC# EVALUATE BI STUDY	
			·	
	,			
•	·		•	
		•		
•				

LONGER-TERM

- INTEGRATE PERFORMANCE ASSESSMENT IN EVALUATING PRIORITIES FOR SURFACE-BASED TESTING DESCRIBED IN SCP
 - EVALUATE RELATIVE SIGNIFICANCE OF EACH NRC PAC WITH RESPECT TO WASTE ISOLATION
 - ASSESS FEASIBILITY OF DEVELOPING CRITERIA FOR EVALUATING SIGNIFICANCE OF EACH PAC TO SITE SUITABILITY
 - IDENTIFY PRIORITIES FOR PERFORMANCE ASSESSMENT STUDIES NEEDED TO SUPPORT EVALUATION OF PACS AND SITE SUITABILITY
 - EVALUATE IMPORTANCE OF EACH PLANNED TEST TO CHARACTERIZATION OF PAC

LONGER-TERM (CONTINUED)

- ESTÁBLISH TESTING PRIORITIES (TESTS IMPORTANT TO CHARACTERIZATION OF THE MOST SIGNIFICANT PACS)
- COMPARE PRIORITIES WITH PLANNED TEST SEQUENCE AND SCHEDULE; IDENTIFY ANY RESEQUENCING NECESSARY TO ENSURE EARLY FOCUS ON PACS THAT MAY REPRESENT SITE-SUITABILITY CONCERNS

EVALUATION ON UNDERGROUND TEST FACILITY

PURPOSE

- REVIEW ALTERNATIVES FOR THE LAYOUT OF THE UNDERGROUND TEST FACILITY.
- REVIEW THE STRATEGY FOR CONDUCTING UNDERGROUND TESTS.
- REVIEW THE METHOD FOR CONSTRUCTING THE UNDERGROUND FACILITY.

RESPONSIBILITY:

THE PROJECT OFFICE WILL LEAD THE EVALUATION UNDER A QA PROGRAM THAT MEETS THE REQUIREMENTS OF 10 CFR 60, SUPPART G. HEADQUARTERS WILL CONDUCT "MANAGEMENT ASSESSMENTS" OF THE PROGRESS AND MAY CONDUCT A TECHNICAL REVIEW OF THE ASSEMBLED REPORT.

THE EVALUATION WILL CONSIST OF A NUMBER OF RELATED TASKS:

- TASK 1: IDENTIFY APPLICABLE REQUIREMENTS AND EXISTING COMMENTS AND CONCERNS.
- TASK 2: QUANTIFY THE APPLICABLE REQUIREMENTS.
- TASK 3: VERIFY INFORMATION THAT WILL CONSTITUTE THE DESIGN INPUT.
- TASK 4: REVIEW PREVIOUSLY CONDUCTED EVALUATIONS OF ALTERNATIVE UNDERGROUND CONFIGURATIONS, TESTING STRATEGIES, AND CONSTRUCTION METHODS.
- TASK 5: IDENTIFY A BROAD SET OF VIABLE CONFIGURATIONS, TESTING STRATEGIES, AND CONSTRUCTION METHOD OPTIONS TO BE FORMALLY EVALUATED.
- TASK 6: DEVELOP THE DETAILED METHODOLOGY FOR CONDUCTING THE FORMAL EVALUATION.
- TASK 7: CONDUCT THE EVALUATION.
- TASK 8: COMPILE A REPORT DOCUMENTING THE RESULTS OF THE PRECEDING TASKS AND CONDUCT A TECHNICAL REVIEW OF THE REPORT PRIOR TO FINALIZATION.

FACTORS TO BE CONSIDERED IN THE EVALUATION

- 1. POTENTIAL IMPACTS ON THE ABILITY OF THE SITE TO ISOLATE WASTE.
- 2. POTENTIAL IMPACTS ON RADIOLOGICAL AND NONRADIOLOGICAL HEALTH AND SAFETY.
- 3. ABILITY TO PERFORM TESTS AND OBTAIN REPRESENTATIVE DATA NEEDED TO DESIGN THE REPOSITORY AND CONDUCT PERFORMANCE ASSESSMENTS.
- 4. FLEXIBILITY TO CONDUCT NEW TESTING NOT PREVIOUSLY IDENTIFIED OR DESCRIBED IN THE SCP.
- 5. FLEXIBILITY TO MODIFY THE CONFIGURATION, CONSTRUCTION METHODS, OR TESTING STRATEGY AFTER CONSTRUCTION HAS BEGUN.
- 6. POTENTIAL FOR CONSTRUCTION-TO-TESTING INTERFERENCE, OPERATIONS-TO-TESTING INTERFERENCE, AND TESTING-TO-TESTING INTERFERENCE.
- 7. COMPATIBILITY WITH REPOSITORY DESIGN REQUIREMENTS AND CONCEPTUAL REPOSITORY, DESIGN.
- 8. NECESSITY FOR PROTOTYPE TESTING OR SURFACE-BASED TESTING PRIOR TO DESIGN OR CONSTRUCTION.

FACTORS TO BE CONSIDERED IN THE EVALUATION (CONT'D)

- 9. TECHNICAL FEASIBILITY AND ENGINEERING CONSIDERATIONS INCLUDING THE RISKS ASSOCIATED WITH USING STATE-OF-THE-ART TECHNOLOGY.
- 10. ABILITY TO CONDUCT ROUTINE OPERATIONS (E.G., TRANSPORTING PERSONNEL, CONDUCTING INVESTIGATIONS).
- 11. IMPACTS ON THE COSTS AND SCHEDULES RELATED TO BOTH THE UNDERGROUND TEST FACILITY AND A REPOSITORY.

CONCERNS THAT SHOULD BE RESOLVED PRIOR TO INITIATING THE EVALUATION

- 1. THE PROJECT OFFICE TO DEVELOP AN IMPLEMENTATION PLAN WHICH WILL BE FORMALLY REVIEWED AND APPROVED (FOR QA REASONS).
- 2. A MUTUALLY AGREED UPON SCHEDULE WILL BE ESTABLISHED FOR CONDUCTING THE TASKS OF THE EVALUATION.
- 3. It should be determined if the compatibility of the underground test facility should be constrained by the existing repository design concepts.
- 4. IT SHOULD BE DETERMINED IF QUANTIFICATION OF REQUIREMENTS AND FINALIZATION OF REQUIREMENTS DOCUMENTS WILL BE NECESSARY.

UPCOMING NUCLEAR WASTE TECHNICAL REVIEW BOARD MEETINGS

December 12 % 13, 1989

Full Board. Topics and location to be announced.

January 18 2 19, 1990

Panel (?) Topic: Waste Package Materials and Designs.

Location: LLNL, Livermore, California.

11-Oct-1989 DRAFT DRAFT

DATA QUALIFICATION POLICY FOR ESF TITLE II DESIGN ACTIVITIES

1. INTRODUCTION

This paper presents the Yucca Mountain Project (Project) policy for qualifying data not generated or acquired under an approved 10 CFR 60 Subpart G Quality Assurance (QA) program, but which will be used in Exploratory Shaft Facility (ESF) Title II design activities that are important to waste isolation or safety. ESF Title II design activities, depending on the location and configuration of the facility, may influence the repository in areas important to waste isolation or safety. Consequently, it is essential that consideration be given to the qualification of existing data used in ESF design since such data may ultimately be used during the licensing process. Even though construction and operation of the ESF will be conducted under a 10 CFR 60 Subpart G QA program, controls must be implemented to assure that applicable ESF design inputs are qualified for their intended use relative to subsequent licensing requirements.

SUMMARY

Data that may be used in support of the license application in areas that are important to waste isolation or safety shall be qualified. Qualified data are data initially collected under an approved 10 CFR 60 Subpart G QA program or existing data that have been qualified through the qualification process identified in this policy. Qualification is a formal process intended to provide a desired level of confidence that the data are suitable for their intended use. Existing data are data selected for use by the Project that were generated outside of the DOE repository program, or within the program prior to establishment of an approved 10 CFR 60 Subpart G QA program. Existing data does not include data widely accepted by the scientific community as established fact (e.g., ASTM and ASME codes, handbooks, standard tables, and other information accepted by the scientific and engineering community). The qualification process must be applied to existing data used in ESF Title II design packages that are important to waste isolation or safety. This qualification constitutes formal recognition that the data are acceptable for the intended use and will be completed prior to initiation of ESF construction activities that use the data.

3. BACKGROUND

The need for qualification of existing data stems from the observation that the success of the license application process will rely on defensible, documented evidence of the merit of the technical positions that are presented. A 10 CFR 60 Subpart G QA program has been established to apply planned and systematic controls to ensure that this evidence is obtained. However, for data generated before the QA program was established, or for situations in which data from external sources are to be used within the program, a formal evaluation of that data is needed to document its acceptability. This evaluation will serve to demonstrate confidence in the data.

The U.S. Nuclear Regulatory Commission (NRC) has addressed this issue by

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publishing Generic Technical Position NUREG-1298, "Qualification of Existing Data for High-Level Nuclear Waste Repositories". Guidance provided by NUREG 1298 indicates that existing data must be qualified if used in the repository licensing process for demonstrating compliance with requirements related to radiological safety and waste isolation. Specifically, existing data, if used in support of the license application, must be qualified if it is to be used in the following: (1) design of systems, structures, or components important to safety, (2) design and characterization of barriers important to waste isolation, and (3) activities related to these two topics. This guidance is implemented through Project Administrative Procedure AP-5.9Q, "Qualification of Data or Data Analyses Not Developed Under the Yucca Mountain Project Quality Assurance Plan."

Questions raised about the timing and extent of application of AP-5.9Q to data qualification have resulted in an evaluation of implementation approaches that can be applied to ESF Title II activities. Evaluation results were used to determine the approach most compatible with the current Project environment. The results indicated that a "phased approach" to qualification of existing data is most appropriate for this purpose. The phased approach concept is that existing data shall be qualified as the data are required for a specific program phase. In this case, the program phase under consideration is ESF Title II design activities.

4. APPROACH

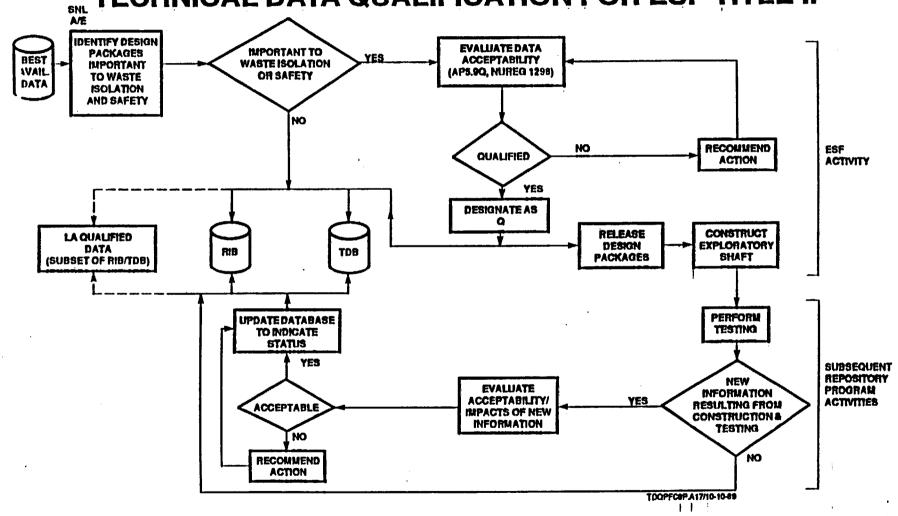
The qualification process will be implemented in accordance with AP-5.9Q and will be integrated with ESF and subsequent repository program activities as shown if Figure 1. Pertinent requirements relevant to the phased approach as they apply to ESF Title II activities are described below.

The Architect/Engineers (A/Es) have the primary responsibility for identifying existing data that must be qualified. This identification will occur as the existing data are used as an input to a specific design package. For example, if the A/E uses existing data that resulted from a performance assessment activity, then the A/E will identify which performance assessment-derived data, based on its application (i.e., importance to waste isolation or safety), must be qualified. The List of Items Important to Waste Isolation, the List of Items Important to Safety, and the Quality Activities List may be used as an aid in identifying activities for which the use of qualified data are required. Once identified, the user documents the purpose to which the data will be used, the source from which the data were obtained, and the date by which qualification must be completed (prior to release of the final design package) in order to support the user's activity schedule. The responsible A/E will then initiate preparation of a documentation package containing the identified data in accordance with AP-5.9Q and submit the package, along with the associated design package, to the Yucca Mountain Project Office (Project Office).

The Project Office will coordinate qualification activities (including completion of the documentation package) with the support of data users and data providers in accordance with AP-5.9Q. This qualification will be accomplished through the peer review option provided in AP-5.9Q, as appropriate. The Project Office will provide guidance on alternatives to initiating qualification through

PHASED APPROACH

TECHNICAL DATA QUALIFICATION FOR ESF TITLE II



11-Oct-1989 DRAFT

a peer review on a case-by-case basis. Peer reviews must comply with guidance set forth in NUREG 1297, "Peer Review for High-Level Nuclear Waste Repositories." Peer reviewers will determine if a set of data is qualified for its intended use. Should a qualification determination not be reached on the basis of the documentation provided, the peer reviewers will recommend what additional actions, as described in AP-5.9Q, are necessary to ensure that qualified data are used in the design package under consideration. The peer review results will be documented to clearly indicate data qualification status.

Design packages important to waste isolation or safety that make use of existing data will not be released for use in ESF construction activities until the data are qualified for its intended use and the appropriate qualification documentation is submitted to the records system. Qualified data will be identified as such in the Project reports, publications, and databases in which they appear.

OVERALL REQUIREMENT:

"A comprehensive Project Information System" (Gertz Ltr 11/88)

INFORMATION ONLY

ProMIS

STEP ONE: DEVELOP OVERALL INFORMATION MANAGEMENT SYSTEM PLAN (IMSP)

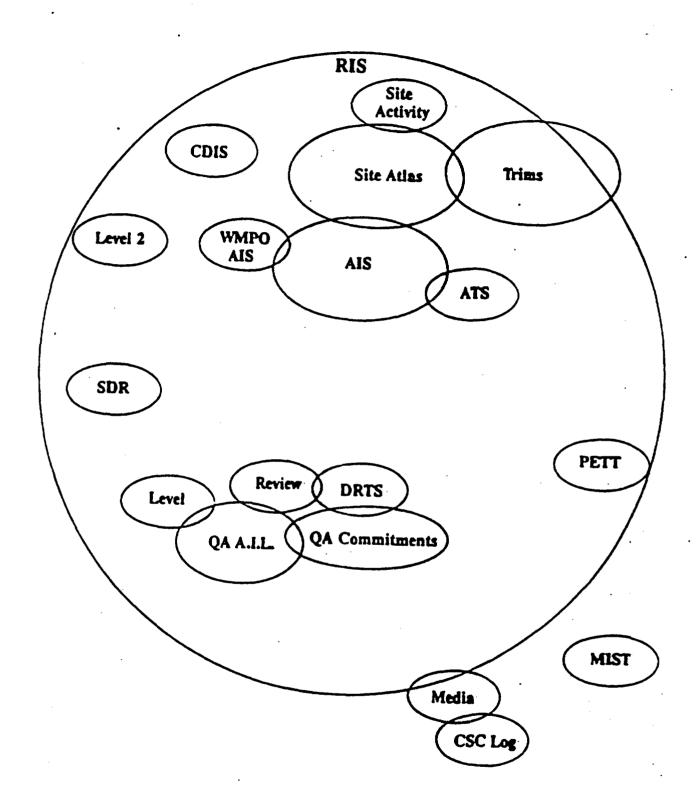
- IRM Resources Baseline
- IRM Long Range Plans
- IRM Work Authorization
- Status Report and Reviews
- IRM Change Control
- IRM Quality Assurance
- IRM Program Reviews

EXISTING CONDITIONS

- Normal Growth Patterns
- No Established Baselines
- Poorly Defined Operating Procedures
- No Established Software Development Life Cycle

RESULTING SITUATION

- Numerous Standalone Systems
- Overlapping Requirements
- Duplicated Data Bases
- Inefficient Use of Hardware & Software Resources
- Cross-correlation of Data Not Possible
- Management Decisions Difficult to Make



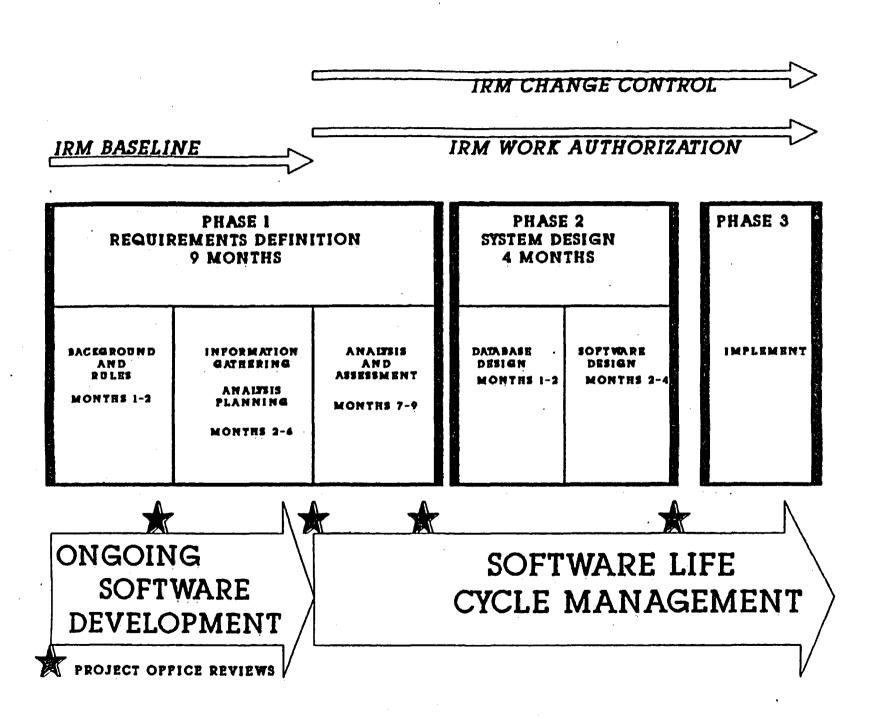
STEP TWO:

- Implement the Information Management System Plan.
- Identify functional management information requirements.
- Establish the Information Resources Management (IRM) Baseline.
- Analyze & design a comprehensive project information system.

STEP TWO:

Requirements, Analysis, & Design (RAD) of the Project Management Information System

ProMIS



PHASE 1 MONTHS 1-2

BACKGROUND AND RULES

ACTIVITIES:

Analyze YMP Environment

Identify Development Constraints

Define Standards and Guidelines

DELIVERABLES:

Software Development Plan

PHASE 1 MONTHS 2-6

INFORMATION GATHERING / ANALYSIS PLANNING

ACTIVITIES:

Interview Current and Potential Users
Investigate Existing Systems

Gather Candidate Requirements

Define Requirements Selection Criteria

DELIVERABLES:

IRM Baseline (for existing systems)

Work Authorization 'Gate'

Preliminary Requirements Document

PHASE 1 MONTHS 7-9

ANALYSIS AND ASSESSMENT

ACTIVITIES:

Evaluate Requirements Specifications

DELIVERABLES:

Final Requirements Documents (IRM Baseline Requirements)

PHASE 2 MONTHS 1-2

DATABASE DESIGN

ACTIVITIES:

Design the Physical Database Structure

DELIVERABLES:

Database Design Document

PHASE 2 MONTHS 2-4

SOFTWARE DESIGN

ACTIVITIES:

Design the Physical Structure of the IMS System

DELIVERABLES:

Software Design Document

REQUIREMENTS FOR SUCCESSFUL IMPLEMENTATION OF ProMIS

Approval of the IMSP

Approval of the Concept

Approval of the SQAP

Commitment of Resources

FUTURE OF INFORMATION MANAGEMENT AT YMP

WITH RAD

Temporary disruption of information system support

Clearly defined IRM Baseline

Uniform Reporting System

Enhanced Quality & Change Control

Consumption of fewer resources per request

Ability to respond to requests for data

WITHOUT RAD

Continous, slow, unstructured and expensive system support

Indeterminate IRM Baseline

Redundant and incompatible data bases

Ineffective Change Control System (no defined baseline for evaluation)

Exponentially increasing resources requirements

Unable to satisfy data requirements

RESOURCE REQUIREMENTS

- PERSONAL MANAGEMENT INVOLVEMENT
 - Adherence to IMSP
 - Management support of schedules
 - Timely provision of guidance and feedback
 - Personal involvement
 - Appointment of appropriate management contacts
 - Assignment of priority to ProMIS activities

RESOURCE REQUIREMENTS

- ESTIMATED RESOURCES
 - Four FTEs dedicated to RAD
 - 3 Systems Analyst
 - 1 Computer Scientist
 - 1 Data Administrator
 - Technical Writers & Specialized Engineers
 - YMP personnel to provide on-going support

ProMIS

"The real problem, in my opinion, is that most American organizations have not yet made a fundamental commitment to quality and productivity over the entire life cycle of the system."

YUCCA MOUNTAIN

YUCCA **MOUNTAIN PROJECT**

CONTROL AND DISTRIBUTION OF TECHNICAL DATA

PRESENTED TO THE

ADVISORY COMMITTEE ON NUCLEAR WASTE

PRESENTED BY

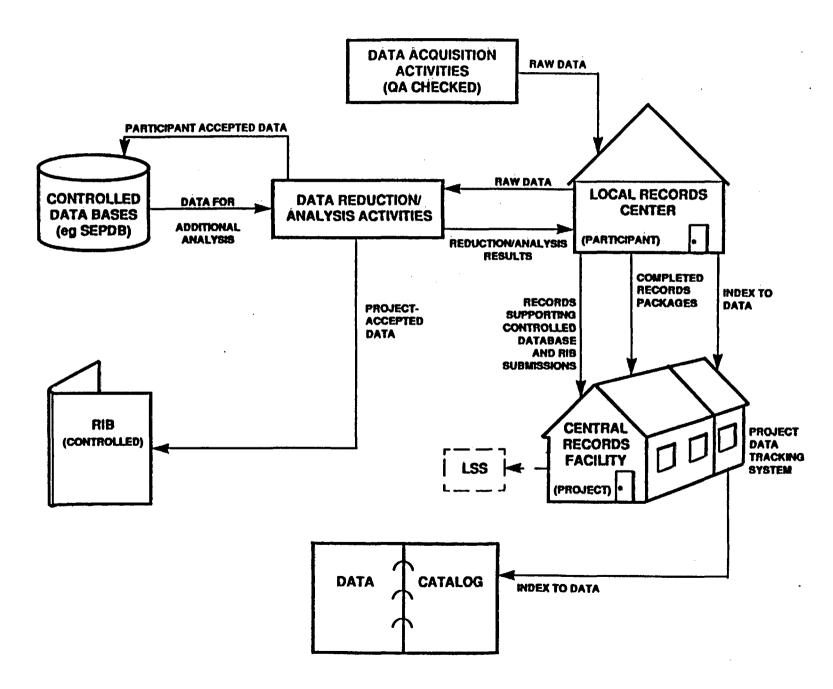
MAXWELL B. BLANCHARD REGULATORY AND SITE EVALUATION **DIVISION DIRECTOR**

SEPTEMBER 14, 1989

NEVADA OPERATIONS OFFICE/YUCCA MOUNTAIN PROJECT OFFICE

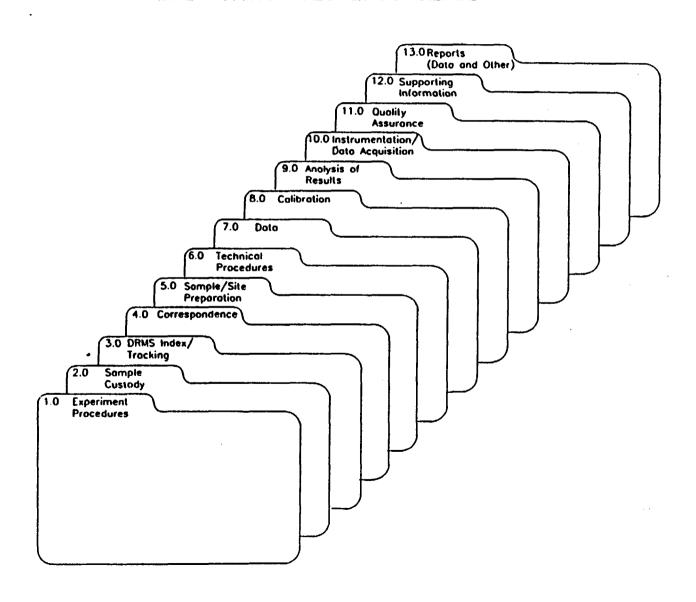






SOURCES OF TECHNICAL DATA (CONTINUED)

SUPPORTING INFORMATION SUBMITTED TO LRC WHEN DATA GOES INTO SEPDB



ing lived in Las Vegas st 20 years and having e than 4,000 hours on eets, I was taught not to nless I had a better idea. r that our multimillionfic computer is overt's relieve some of the egas metropolitan area, as Vegas Boulevard and

10 million improvement

blems at peak times.

itor: new-Journal does anothrity dance with the smug editorial on America's Their numbers are not ot be known. Numerical us little or nothing to do erceived heartlessness of it or previous administraindeed, the numbers of are smaller, then the sothat much more attain-

tions of Mitch Snyder. To the editor. a political system that palm reading classes (Oct 10 let pass throughor near Las Vegas lions of tax dollars annuters).

The Nuclear Regulatory Comle American citizens "Know thyself" has been a long mission predicts that even without thousands or millions) standing axiom of philosophers human error there will be a truck.

The second secon

& The \$100 million improvement bond is not a quick fix, since the improvements this bond will bring will not affect Las Vegas for at least two years. 55

sleep on the sidewalks.

Bush administration. It is as heart- reading and astrology are but a few y putting police officers less and frivolous as it is given of the tools that aid in this quest. tions to direct traffic in license to be by the voters.

at peak traffic times who step over the prostrate bodies; his teachers did not instill in him, y the busiest intersect while going about their business, the values of interest curiosity, vada); Las Vegas Boule- taking comfort in the implication and keeping an open mind. Fropicana: Interstate 15 of your editorial statement that JOAN WILLIAMS cana; and any other in there really aren't so many of them.

Las Vegas that is having major and simply avoiding them will solve the problem.

Your tacit approval of this attinumber improvement Your tacit approval of this attint a quick fix, since the tude is made apparent by your. To the editor. ents this bond will bring characterization of those con- Joy Hyde Fiore blandly asserts iffect Las Vegas for at cerned with the plight of the home - the Yucca Mountain high-level nurears. The time to act is less as "guilt-ridden hangers on." If clear waste dump will be safe, and a quick fix is in order we don't feel a twinge of guilt about to think otherwise is to be ill-in-TLLIAM WALTER JR. the crass treatment of the home-Las Vegas less by our society, then we each deserve no better fate.

You are absolutely correct when a you acknowledge that many of the homeless suffer concurrent indignities, drug and alcohol addiction, mental and physical illness, among them. That our streets are homes for saints and sinners is not a surprise; the surprise and pity is that we, as individuals, barely lift a finger to help them.

WAYNE B. LOGAN

lev. Jesse Jackson show ... John J. Pfeiffer Jr. was very discommitted to forcing the tressed that the library district had people to take a hard planned to hold Tarot card and per day carrying this waste will

and is the reason psychiatrists are The fault does not lie with the so busy these days. Tarot, palm

However and wherever Pfeiffer

Las Vegas

The transfer of the second dump

formed (Oct. 2 letters). However, Fiore's letter itself contains much misleading information.

While Fiore admits plutonium is harmful if inhaled, she does not say s that as little as 27 millionths of a gram within the body is enough to induce cancer. The repository at Yucca Mountain will contain more than 3 trillion lethal doses.

That alpha radiation emitted by plutonium does not readily penetrate barriers is irrelevant; indeed. Las Vegas the Department of Energy considers alpha-emitting radionuclides the most dangerous form of radioactive substances because of their extreme toxicity and longevity.

Fiore ignores the problem of transport. The DOE projects that. 10 to 18 trucks (or 2 to 3 trains),

accident severe enough to release radioactive contents every 8.7

Fiore states the plutonium will be "sealed" and therefore safe, ignoring the question whether plutonium can be completely sealed for the required minimum of 10,000 years.

The presence near the proposed site of 30 fault lines, a possibly active volcano and the Nevada The fault lies with the people received his education, apparently water flow along fault lines, raise serious questions about the suitability of Yucca Mountain.

When we remember that three out of six U.S. nuclear dumps have already been closed because of contamination of the environment, that all six of the DOE nuclear weapons plants are on the EPA Superfund list of most dangerous waste sites, and that more than 30,000 mishaps at U.S. nuclear power plants have been documented since Three Mile Island, it; is difficult to take seriously Fiore's statement that to question the safety of Yucca Mountain is to know "only half the facts."

Documentation for this information can be obtained from Public Citizen, Critical Mass Energy Project, Washington, D.C.

ELSPETH WHITNEY Public Citizen member,

How to writ

The R-J welcomes letters. from readers: They should be limited to 200 words, must have a signature, return address and phone number. Names will not be withheld for any reason. Send to: Letters to the Editor, Box 70, Las Ve gas, Nev., 89125-00703

an and Wink wouldn't abide '

For immediate Release

Contact:

Robert C. Dickinson NNWSC 876-8660

NEVADA UNIVERSITIES JEOPARDIZING OVER \$22 MILLION IN RESEARCH FUNDS AND CHANCE FOR NATIONAL RECOGNITION

The state of Nevada's Higher Education system could lose a potential \$22.8 million in firm research contracts over the next five years, and the opportunity to emerge as one of the country's top research institutions, if it is not allowed to pursue research grants being awarded by the Department of Energy.

"This is an outrage that our university's are being asked to give-up millions of dollars in research grants and the opportunity to become one of the United State's centers for nuclear waste research," said Robert C. Dickinson, co-chairman of the Nevada Nuclear Waste Study Committee, a private citizens group composed of 8,500 Nevadans that encourage and seek factual information as the basis for making any decision regarding the proposed repository at Yucca Mountain.

Dickinson said his figures were based on projects that the Department of Energy has allocated funds for Yucca Mountain studies. All of the projects would require Congressional approval. Those figures include:

- The \$10 million super computer proposed for UNLV. The computer will enable UNLV to become a national center for computational studies in radioactive waste.
- Up to \$6 million, possibly more, to establish a licensing support and records
 management system at UNLV. Formation of this system would further add to
 UNLV's reputation as a national center for computer information and scientific
 research.
- An additional \$4.8 million for Yucca Mountain site characterization studies. The money would be used for a cooperative agreement to coordinate oversite of independent engineering, environmental, biological and socioeconomic studies conducted by independent research groups such as the Technical Review Board, the Nuclear Regulatory Commission, the National Academy of Sciences and others. The university system has already received \$425,000 for the development of this system. The DOE, with congressional approval, could allocate an additional \$975,000 each of the next five years to fund this program.

UNLY has received \$1.5 million from the state, which received federal funding, to conduct studies on transportation issues associated with Yucca Mountain. More study money would be available to continue research into this area.

In addition to the known available research funds, there are other intangible benefits that are being put in jeopardy should the university system decide to not pursue DOE research grants.

The Office of Civilian Radioactive Waste Management (OCRWM) is considering a number of universities to provide a graduate level fellowship program in nuclear waste research. UNLV is being considered for this fellowship program. A total of 18 universities including the Massachusetts Institute of Technology, the University of Arizona, the University of Michigan, the University of Pittsburgh, and the University of Illinois are pursuing the scholarship.

"If UNLV were selected for the graduate fellowship program, it would bring our school a step closer to being recognized as a major research university, a goal that UNLV has pursued since its inception," Dickinson said.

Nevada's leaders could learn a valuable lesson from their counterparts in New Mexico, according to Dickinson. Elected officials in New Mexico, which has been selected as the site for the Waste Isolation Pilot Plant (WIPP) a repository to store nuclear waste materials generated by the country's defense programs, have welcomed similar funding of study programs in that state's universities.

Under the program - the first of its kind in the country - the University of New Mexico, New Mexico State University and New Mexico Institute of Mining and Technology will offer graduate and undergraduate degrees and conduct experiments on a wide range of problems related to waste management. The program will receive considerable funding from DOE.

Sen. Pete Domenici, R-N.M. was quoted as saying it is, "fitting that New Mexico has been chosen to lead the way in this first-of-its-kind program. I strongly support the creation of a center of excellence in New Mexico to study the safest and best ways of dealing with waste management."

Echoing Domenici's statement's was New Mexico's other U.S. Senator Jeff Bingaman, D-N.M. "We put substantially more money in the DOE budget for research into

nazardous waste and radioactive waste disposal and I think it's great that they're going to spend some of it in New Mexico. It's a good thing for the state and for the universities." Dickinson said the 8,500 members of the NNWSC can not help but wonder why Nevada's U.S. Senators do not share the same foresight as their peers in New Mexico. "As citizens of Nevada, we are appalled that some of our elected officials, which should be working in our best interest, want to stand let these types of funds go elsewhere, when elected leaders in a state facing the same type of situation as Nevada, are willing to turn a perceived problem into a benefit for the state."

According to the NNWSC's interpretation of the DOE research grant applications, acceptance of the money by the state's university system does not constitute "implied consent" by the state regarding its position on the repository. The programs funded by the DOE are the same as other funding for research money for studying nuclear waste management issues that major universities such as University of California-Berkeley or ______ are currently performing. If Nevada's schools do not receive the study grant money, other universities around the nation will receive these funds.

More than the university system is being affected by current political decisions according to Dickinson. "The refusal to accept federal study monies could do immeasurable damage to the university's prestige and appeal, just when our school is emerging into the ranks of nationally recognized institutions. This is crucial to the growth and development of business and industry in Las Vegas especially high level research oriented and electronic/computer types of industry."

The NNWSC believes in the public trust that citizens of Nevada place in their university system, to conduct research in an unbiased fashion using established scientific methods. The colleges, universities and staff should be considered trusted and respected members of our community.

"We can only hope that Nevada's political leaders will join the NNWSC in affirming support of the university's academic freedom to allow its staff to do research into any areas they believe will contribute to furthering man's knowledge, whether it is a popular or unpopular topic. A state must not attempt to use laws to restrict the areas in which its universities may search for knowledge," Dickinson said.

PROJECT UPDATE MEETING AGENDA Tuesday, September 26, 1989 Henderson Community Center, Henderson, Nevada

7:00 p.m	Welcome and Introductions Carl Gertz, Project Manager Joe Strolin, Nevada Nuclear Waste Project Office, Dennis Bechtel, Clark County
7:30 p.m	Yucca Mountain Project Overview
7:45 p.m	.Questions & Answers
8:00 p.m	.Safety in Waste Shipments, Bill Andrews, SAIC
8:15 p.m	.Questions & Answers
8:30 p.m	.Break
8:45 p.m	.Volcanoes At or Near Yucca Mountain, Bruce Crowe, Los Alamos National Laboratory
9:00 p.m	.Questions & Answers
9:15 p.m	.Earthquakes At or Near Yucca Mountain, Augie Matthusen, SAIC
9:30 p.m	.Questions & Answers
9:45 p.m	.Exhibits, Individual Questions and Answers

WHY WE ARE HERE:

The Department of Energy (DOE) has not fulfilled either its legal mandate or the promise made by the Secretary of Energy to the Governor of Nevada. We are out here to let the public know that the DOE has broken its word once again.

- 1) According to the Nuclear Waste Policy Act, public hearings, like those held last March in Amargosa, Las Vegas and Reno, require the DOE to respond in writing to public comments and questions. This response could take the form of modifying its plans or explaining why no modification was necessary. In September, 1989, almost six months after the hearings, the DOE announced that it would respond to the comments sometime in 1990. Meanwhile they continue to work on the Yucca Mountain Project without taking legally mandated public commentary into account.
- 2) In May, 1989, Secretary of Energy James Watkins made a commitment to Gov. Miller and the Congressional delegation that future update meetings would be held after progress reports were published with time for the public to read them. These progress reports are mandated every six months by the Nuclear Waste Policy Act. The progress reports have not been published.

During the summer Citizen Alert urged the DOE to delay these update meetings until the progress reports were done, and they had responded to public comment of the hearings last March. We can only assume that they feel they can placate public opinion about their lack of responsiveness to technical issues by holding lots of meetings to 'give us information', We want to make sure the public sees through this pretense.

Some of the Citizen Alert members will be repeating their questions of last March in order to see if the DOE has come up with any answers.

Fundamentals of Nuclear Waste Management

- 1 No acceptable disposal method for nuclear waste exists. Proposed methods will not dispose of the waste, only postpone contamination of the environment.
- 2 No level of radiation exposure is safe. Every dose carries a risk of damage. Epidemiological studies into cause/effect relation of radiation and health are premature and inconclusive. We need baseline health profiles for any community which has an existing or planned nuclear facility so we can start gathering information.
- 3 Radioactive waste is radioactive waste. The distinction between types and levels, such as high level, low level, transuranic, etc., are artificial and arbitrary and should not determine handling procedures. All radioactive material should be treated with the same care.
- 4 Our present inventory of nuclear waste should be isolated in retrievable, above-ground facilities which are as durable as we know how to make them. All necessary political, social and financial arrangements should be made to insure, to the best of our ability, its careful guardianship.
- 5 Existing nuclear waste should not be moved; it should be isolated on-site in retrievable facilities. Exceptions may have to be made in rare cases where not even a carefully designed, retrievable facility is able to secure public health and safety; for instance when waste is located on an active earthquake fault or flood plain.
- 6 No more waste should be created from weapons, from electricity generation or from industry. Wastes from nuclear medicine are a miniscule portion of the radioactivity of our waste stream. Their disposal poses a manageable problem because of their short half lives and low concentrations; they can be tolerated until reliable substitutes can be found.

P.O. Box 1681 Citizen Alert
P.O. Box 5391

P.O. Box 1681 Las Vegas, Nevada 89125 (702) 649-4384 P.O. Box 5391 Reno, Nevada 89513 (702) 827-4200



One more opportunity for Nevada Nuclear Waste Committee involvement!!

YUCCA MOUNTAIN MEETING

The U.S. Department of Energy's Yucca Mountain Project is inviting the public to attend an information meeting about suitability studies relating to a proposed high-level nuclear waste repository in Nevada.

7:00 - 10:00 pm Monday, September 25, 1989 Pahrump Community Center Pahrump, Nevada 7:00 - 10:00 pm Tuesday, September 26, 1989 Henderson Convention Center 200 Water Street Henderson, Nevada

7:00 - 10 pm Thursday, September 28, 1989 Carson City High School Carson City, Nevada

These semiannual Project Update Meetings provide citizens with current information about the Yucca Mountain Project in Nevada and an opportunity to have their questions answered. Technical experts also will be on hand with exhibits about issues such as waste transportation and environmental safety, and will be available to talk to individuals. The State of Nevada also has been invited to participate.

Please plan to attend the meeting in your area! Let's find out the facts!!!

P.S. If you will be able to attend, please contact Kati Smith, NNWSC, at 791-6972.

Los Alamos

Los Alamos National Laboratory Los Alamos, New Mexico 87545 WBS #: 1.2.9 QA: N/A

October 30, 1989

TWS-EES-13-10-89-082

Mr. Carl P. Gertz, Project Manager Yucca Mountain Project Office US Department of Energy P.O. Box 98518 Las Vegas, NV 89193-8518 A STION _yme HIFO _____ AMA _____ AMESH ____ OER ____

Dear Mr. Gertz:

SUBJECT: SEPTEMBER PROJECT STATUS REPORT

Attached is the September Project Status Report for Los Alamos' participation in the Yucca Mountain Project.

Sincerely

R. J. Herbst

ABC/em

Attachment: a/s

Cy w/attachment:

R. Bullock, FSN, Las Vegas, NV

J. C. Calovini, H&N, Las Vegas, NV

V. J. Cassella, HQ/Washington, DC

C. Garvin, SAIC, Las Vegas, NV

L. Hayes, USGS, Denver, CO

T. Hunter, SNL, Albuquerque, NM

T. Jackson, SAIC, Las Vegas, NV

R. F. Pritchett, REECo, Las Vegas, NV

L. Jardine, LLNL, Livermore, CA

A. M. Sastry, MACTEC, Las Vegas, NV

J. Nelson, SAIC, Las Vegas, NV

T. Petrie, DOE/YMPO, Las Vegas, NV

M. Cloninger, DOE/YMPO, Las Vegas, NV

U. Clanton, DOE/YMPO, Las Vegas, NV

D. Dobson, DOE/YMPO, Las Vegas, NV

J. Robson, DOE/YMPO, Las Vegas, NV

V. Iorii, DOE/YMPO, Las Vegas, NV

J. Waddell, SAIC, Las Vegas, NV

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Carl Pl Gertz, Project Manager October 30, 1989 TWS-EES-13-10-89-082 Page 2

Cy w/attachment:

- J. Peck, SAIC, Las Vegas, NV
- K. Beall, SAIC, Las Vegas, NV
- J. Younker, SAIC, Las Vegas, NV
- I. Cottle, SAIC, Las Vegas, NV
- J. Treadwell, SAIC, Las Vegas, NV
- A. B. Caughran, IS-11, MS J521
- R. J. Herbst, EES-13, MS J521 J. A. Canepa, EES-13, MS J521
- W. Myers, EES-DO, MS D446
- H. N. Kalia, EES-1/LV, MS J900/527
- K. A. West, EES-13, MS J521
- H. P. Nunes, EES-13, MS J521B. M. Crowe, EES-13/LV, MS J900/527
- A. R. Pratt, FIN-10, MS J521

RPC File (2), MS J521

EES-13 Library, MS J521

TWS-EES-13, MS J521

Cy w/o attachment: CRM-4 (2), MS A150 I-507391h

Los Alamos National Laboratory

MONTHLY STATUS REPORT SEPTEMBER 1989

1.2.1 Systems

SIGNIFICANT MEETINGS:

Los Alamos attended the Technical Integration Group meeting on Performance Assessment held in Las Vegas, Nevada, on September 21-22. A presentation was made on a set of preliminary 3-D forward transport calculations (using TRACRN) from the repository to below the water table.

1.2.3.2 Geology

MAJOR ACCOMPLISHMENTS:

Microprobe analysis of manganese oxides on polished fracture surfaces from the Tiva Canyon Member began this month, and work continued on scanning electron microscope analysis of fracture coatings in the Topopah Spring Member in USW G-2 and USW GU-3.

Several samples were selected from on-hand Yucca Mountain drill core for potassium/argon studies of zeolites and authigenic alkali feldspar. Mineral separation is in progress.

Energy-dispersive x-ray maps were collected from magnetometer separates from Calico Hills tuff in drill core USW G-2-2430.

Elevation and cross-section maps were prepared for sample locations in Solitario Canyon, from which prototype samples were collected for the Exploratory Shaft. These maps will be used in a database for evaluating requirements for sample spacing and size for exploratory shaft sampling for Topopah Spring Member.

PLANNED WORK:

Work will continue on fracture mineral analysis of USW G-2 and USW GU-3 core.

SIGNIFICANT MEETINGS:

Staff of the fracture mineralogy and alteration history subtask attended the CASY workshop "Applications of Heavy Radiogenic Isotope Systems to Hydrogeologic Problems at Yucca Mountain" in Colorado on September 13-14.

Two papers, "Mineralogy-Petrology Studies and Natural Barriers at Yucca Mountain, Nevada" and "Volcanic Probability Calculations for the Yucca Mountain Site: Estimation of Volcanic Rates," were presented at the FOCUS 89 meeting in Las Vegas, Nevada.

A talk on volcanism studies was presented as part of the Semi-Annual Project Update meetings. The volcanism staff also attended and provided brief discussions of volcanism studies at a meeting of the National Academy of Sciences' subcommittee on radioactive waste disposal in Albuquerque.

PROBLEM AREAS:

None.

1.2.3.3 Hydrology

MAJOR ACCOMPLISHMENTS:

One year ago, the prototype diffusion test tracer solutions were emplaced in two types of tuff at the Nevada Test Site's G-Tunnel. The packers continue to function properly.

Seven samples of material from G-Tunnel and hole USW UZ-1, plus a NaCl reagent blank, were prepared for chlorine-36 analysis and sent for mounting in holders at the University of Rochester's accelerator mass spectrometer. Preliminary results were obtained.

Dr. J. C. Westall from Oregon State University was brought in as a consultant for the tracer identification and characterization task within the Reactive Tracer Study at the C-wells subtask. Dr. Westall is well known as a surface chemist with particular emphasis in sorption in environmental systems. He placed considerable emphasis on the capability to do laboratory experiments with both individual minerals and tuff samples and then to be able to take this capability to the field for testing.

PLANNED WORK:

Continue chlorine-36 analysis of samples from G-Tunnel.

SIGNIFICANT MEETINGS:

The paper, "The Use of Chlorine Isotope Measurements to Trace Water Movements at Yucca Mountain," was presented at the FOCUS 89 meeting held in Las Vegas, Nevada.

Staff of the chlorine-36 task attended a U S Geological Survey workshop in Colorado on September 13-14. The workshop was called "Applications of Heavy Radiogenic Isotope Systems to Hydrogeologic Problems at Yucca Mountain."

PROBLEM AREAS:

None.

1.2.3.4 Geochemistry

MAJOR ACCOMPLISHMENTS:

The study of the sorptive behavior of americium (Am) in natural and synthetic groundwaters and pure minerals continues. The Am samples chemically separated for mass spectrometric analysis are currently being analyzed. Complete analyses of the major elements in the pure minerals used for our neptunium, Am, and technetium (Tc) work have been completed. Water/rock ratio experiments and Tc sorption experiments on pure mineral phases have continued. Several adsorption isotherms involving uranium on goethite are complete.

The study of the sorption of radionuclides as a function of time using beakers made of Yucca Mountain tuff is still in progress (see schedule in February's monthly report). This month, calculations of the uptake (as a function of time) for strontium, cesium (Cs), and barium present in the solutions placed in contact with the rock beakers were started. The analyses of the uptake of actinides by the rock beakers are in progress.

A set of preliminary 3-D forward transport calculations (using TRACRN) from the repository to below the water table was completed. Calculations include transport of Tc and Cs at recharge rates of 0.1, 0.5, and 4.5 mm/yr. Tilted stratigraphic beds and spatially distributed sorption coefficients were represented on a grid composed of 30,870 zones.

TRACRN was placed under configuration management. FEHMN and FEHMSN verification continues.

Field test design-scoping calculations using TRACRN were set up and begun. The first design being investigated is for constant pressure injection of water, which contains a conservative tracer, into a single horizontal borehole in an unsaturated medium that has the characteristics of the Calico Hills nonwelded zeolitic unit. The calculations will assist in setting bounds on expected behavior for each field test. The field tests are being developed as part of the new study plan 8.3.1.3.7.2.

SIGNIFICANT MEETINGS:

Staff of the groundwater chemistry modeling task attended the CASY workshop "Applications of Heavy Radiogenic Isotope Systems to Hydrogeologic Problems at Yucca Mountain" in Colorado on September 13-14.

The following papers were presented at the FOCUS 89 meeting in Las Vegas, Nevada: "Formation, Characterization, and Stability of Plutonium (IV) Colloid: A Progress Report;" "Laboratory Studies of Radionuclide Migration in Tuff;" "Sorption of Radionuclides on Yucca Mountain Tuffs;" and "Preliminary Integrated Calculations of Radionuclide Cation and Anion Transport at Yucca Mountain Using a Geochemical/Geophysical Model." Proceedings papers are forthcoming.

PLANNED WORK:

Water/rock ratio sorption experiments will continue as nuclide diffusion and filtration experiments. More 3-D transport calculations are planned for the Migration 89 meeting to be held in Monterrey, California, in November.

PROBLEM AREAS:

None.

1.2.5 Regulatory and Institutional

MAJOR ACCOMPLISHMENTS:

Site Characterization Plan (SCP)

The Integration Group held a meeting on September 28-29 to discuss the plan for resolving Nuclear Regulatory Commission comments on the statutory SCP. Input was provided for the comments that are Los Alamos' responsibility.

Study Plans

Study Plan 8.3.1.8.1.1, Probability of a Volcanic Eruption Penetrating the Repository. A comment resolution meeting was held in Las Vegas.

PROBLEM AREAS:

None.

1.2.6 Exploratory Shaft

MAJOR ACCOMPLISHMENTS:

Los Alamos approved the EG&G Quality Assurance Plan.

The Functional Requirement Document (FRD) was released as a Los Alamos controlled document. The FRD will serve as a key design input document for IDS design. A Readiness Review was conducted to determine EG&G's readiness to start IDS Title II design.

The prototype testing summary report was submitted to YMPO. A Preliminary Safety Analysis Report (PSAR) for ESF testing was also submitted to YMPO. The Los Alamos PSAR is being edited and will be released as a Los Alamos controlled document.

Los Alamos submitted a collaborative proposal (Los Alamos and U.S. Bureau of Mines) for the development of the drilling and dust control system for the ESF. Los Alamos also initiated work on developing a joint proposal with Sandia on field testing activities in support of ESF and repository construction methods.

PLANNED WORK:

Seek authorization from YMPO to start Title II Phase IA design of the IDS.

PROBLEM AREAS:

None.

1.2.9 Project Management

MAJOR ACCOMPLISHMENTS:

Los Alamos completed and submitted to the Project Office the initial PACS requirements for W.B.S. areas 1.2.1 and 1.2.9.

SIGNIFICANT MEETINGS:

Terry Tate and staff presented a PACS information/implementation briefing to Los Alamos staff.

PROBLEM AREAS:

None.



DATE:

November 1, 1989

TO:

Mike Glora/Sue Volek

FROM:

Paula Austin

SUBJECT: Monitored Retrievable Storage (MRS) Commission Recommendations

As of 8:00 a.m. this morning, I learned that according to a 3-page Executive Summary released today by the MRS Review Commission, the recommendations are:

- o Construction of a Federal emergency storage facility with a capacity of 2000 metric tons
- o Construction of a user-funded interim storage facility with a capacity of 5000 metric tons
- Reconsideration of interim storage by the year 2000 because of uncertainties with the repository

These recommendations are in light of the following conclusions made by the MRS Review Commission:

- o No technical basis exists for choosing an MRS or no MRS--both are safe
- o The total net cost including an MRS is lower than previously estimated because of repository delays (economies of scale and time)
- o There are significant uncertainties associated with the repository. If the repository is not up and running by 2013, interim storage becomes significant
- o There was no discriminating factor to make the choice—can go either way
- o The current NWPAA linkage of the MRS to the repository is not justified (although some linkage is necessary)
- o The Commission notes that an MRS would be viewed as a de facto repository
- o However, some limited capacity is in the national interest to provide for emergency storage

I do not yet have a copy of the Executive Summary but will try to get one. DOE/HQ should have it by now. The actual report will be available after the Commission's press conference this afternoon. Someone from my office (since I am here in Las Vegas) will attend the Johnston hearing tomorrow.

PWA:gg

cc:

C. Gertz

A. Robison

MONITORED RETRIEVABLE STORAGE REVIEW COMMISSION

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	MONITORED RETRIEVABLE STORAGE REVIEW COMMISSION				
1825 K STREET, NW, SUITE 318					
	WASHINGTON, D	.C. 20006	VERIFICAT	TON 4: 202-653-5361	
TO:	Ms. Beatrice E. Reilly, Deputy Manager				
		Science Applications Intl.			
	FAX NUMBER:	702-794-	7008 or 7009		
Subjec	T: Announcement	of Repor	t		
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Executive Summary

About 20,000 metric tons of spent, or used, nuclear fuel have accumulated since the beginning of commercial nuclear power production in the United States. At the end of the currently licensed period of all existing nuclear power plants and those under construction, the amount of spent nuclear fuel is expected to total 87,000 metric tons.

Thus far, practically all of the spent nuclear fuel is stured in water-filled pools at reactor sites. However, space does not exist in the pools to store all the spent fuel expected to accumulate over the lifetime of the reactors. Therefore, other storage must be made available.

U.S. policy is to dispose of spent fuel from nuclear power plants in a permanent underground geologic repository. The objective of permanent disposal is to limit to safe quantities the amount of nuclear waste that might reach the biosphere during the next 10,000 years and beyond.

To achieve that objective, Congress, in the Nuclear Waste Policy Amendments Act of 1987 (NWPAA), designated Yucca Mountain, Nevada, as the candidate site for a repository. Final selection of the Yucca Mountain site was made subject to extensive studies of the suitability of this site and other conditions.

The objective of Congress in adopting the NWPAA was to have a repository available for accepting spent fuel in 1998. However, the U.S. Department of Energy (DOE), which has responsibility for characterizing the Yucca Mountain site, has announced that the opening of the repository will be delayed until 2003, and it is likely that there will be additional delays.

To store spent fuel until the permanent repository is available, a monitored retrievable storage (MRS) facility has been proposed by DOE. The MRS would serve as a means of collecting spent fuel, in excess of that in reactor pools, in a central location, where it would be stored until the fuel can be accepted at the repository. It has also been proposed that the MRS could serve other purposes, such as consolidating the fuel and packaging it for ultimate disposal in the repository.

Pacilliles similar to an MKS have been proposed since 1972 and have always been the subject of considerable controversy. As recently as 1987, DOE proposed to build an MRS at the Clinch River site near Oak Ridge, Tennessee. In adopting the NWPAA later that year, however, Con-

gress "annulled and revoked" the DOE proposal to locate an MRS in Tennessee.

In the same law, Congress authorized the construction of an MRS but created the Monitored Retrievable Storage Review Commission to study and report to Congress on whether an MRS should be a part of the Nation's nuclear waste disposal system. Essentially, Congress directed the MRS Review Commission to compare the options of a waste disposal system that included an MRS with one that did not include an MRS. The latter, which is known as the No-MRS alternative, would require continued storage of spent nuclear fuel at the more than 70 existing sites of nuclear power plants until the repository is operational.

In the NWPAA, DOE was directed to begin site surveys for an MRS only after the MRS Review Commission had submitted its report to Congress. The NWPAA also limited the capacity of the MRS and linked its construction and operation to the repository schedule.

This report represents the results of almost 18 months of study and deliberations by the MRS Review Commission in response to its mandate from Congress. In addition to its own studies and evaluations, the Commission contracted a number of studies by independent consultants; held extensive public hearings in four locations in the United States; reviewed detailed studies by DOE, the State of Tennessee, and others; received numerous written statements; and visited nuclear waste storage sites in the United States and in four European countries.

As a result of its extensive studies and deliberations, the Commission reached the following conclusions:

Conclusion No. 1. From a technical perspective, both the No-MRS and MRS options are safe.

Although neither option is completely without risk, the Commission determined that the risks are expected to be small and within regulatory limits, and the degree of difference in risks is so small that the magnitude of difference should not affect the decision as to whether there should be an MRS.

Conclusion No. 2. The net cost of a waste management system that includes an MRS would be lower than previously estimated because of delays that have already occurred in the expected date of repository operation, and the likelihood of further slippages of that date.

The economics of an MRS would become more favorable if the repository were delayed and if the MRS were to accept spent fuel as early as possible. These effects would become especially significant if the repository operation were to be delayed beyond 2013, when there will be a sharp increase in the number of nuclear power plants whose current licenses will expire. If a repository were not in operation by that time, utilities would incur major additional costs that would result from the inability to remove spent fuel from plants being decommissioned. However, a system with an MRS would still be somewhat more costly on a discounted basis than one without an MRS.

Conclusion No. 3. There are no single discriminating factors that would cause the MRS alternative to be chosen in preference to the No-MRS alternative.

Although the Commission does not find any single factor that would cause it to favor one alternative, it believes that, cumulatively, there are a number of advantages that would justify a central storage facility not limited in capacity nor linked to the repository schedule and operation. These advantages include storage for emergency purposes; storage for utilities which do not have sufficient space in their spent fuel pools or on-site or which cannot obtain a license for additional at-reactor storage and, hence, might be required to shut down an otherwise satisfactorily operating nuclear power plant; storage for spent fuel from shuldown reactors; economies in the waste management system if an MRS could be completed substantially before the repository; greater redundancy in the system in the event of unforeseen circumstances; more surge capacity to facilitate the flow of spent fuel to the repository; more flexibility in storage options and future waste preparation functions; assistance in standardization; and initiating Federal responsibility for taking possession of spent fuel.

Conclusion No. 4. An MRS linked as provided in current law would not be justified, especially in light of uncertainties in the completion time for the repository.

Consequently, the Commission does not recommend a linked MRS as required by current law and as proposed by DOE.

The Commission notes that Members of Congress, other public officials, environmental groups, and many private citizens for many years have expressed concern that an unlinked MRS might be regarded as a de facto repository, and thereby would reduce the impetus for building the repository as expeditiously as possible. Although the Commission does not believe that there is a technical basis for the linkages, the Commission agrees that, in light of congressional and other concerns about a de facto repository, some linkages are justified.

However, the schedule linkage presently in the NWPAA (MRS construction may not begin until the Nu-

clear Regulatory Commission issues a license for the construction of a repository) would make it impossible for an MRS to be operational more than three years before the repository. Because of delays already experienced in the repository schedule and continued uncertainty surrounding the repository's location and date of operation, the value of the MRS would be greatly diminished if its construction were tied to the schedule of the repository. Most of the need for an MRS would have disappeared, in that utilities would have had to make other arrangements for storage,

Conclusion No. 5. Some interim storage facilities, substantially more limited in capacity and built under different conditions than the DOE-proposed MRS, are in the national interest to provide for emergencies and other contingencies.

The Commission recognizes the need to provide certain services that would be in the national interest, but which could not be provided by an MRS restricted by the schedule linkages currently in the law. The Commission concludes that spent fuel storage for emergency and other purposes would be in the national interest. Facilities to fulfill this national interest could be more limited in scope and could be built under different conditions than the DOE-proposed MRS.

In view of the conclusions noted above, and in light of its extensive studies and deliberations, the Commission recommends the following:

Recommendation No. 1. Congress should authorize construction of a Federal Emergency Storage (FES) facility with a capacity limit of 2,000 metric tons of uranium (MTU).

In light of the continuing delay in the building of a repository, the Commission believes it would be in the national interest to have available a safety net of storage capacity for emergency purposes, such as an accident at a nuclear power plant, which would make it advantageous to have the plant's spent fuel pool available for decontamination of affected parts of reactors and for storage of debrix.

If the facility proposed in Recommendation No. 2 were not available, the FES also could be used to store spent fuel from otherwise satisfactorily operating nuclear power plants that would have to be shut down because of insufficient on-site storage.

Because the FES would be designed primarily for emergency use and, hence, would serve as "insurance" for the entire industry, the Commission recommends that the cost of this facility should be paid from the Nuclear Waste Fund, to which all of the utilities which generate power from nuclear energy contribute.

Recommendation No. 2. Congress should authorize construction of a User-Funded Interim Storage (UFIS) facility with a capacity limit of 5,000 MTU. Such a facility

would provide storage only, and would be used in addition to the Federal Emergency Storage facility proposed in Recommendation No. 1.

Although spent fuel can be stored safely at reactor sites for as long as 100 years, some utilities may not have space on-site for life-of-plant storage or may not be able to obtain a license for additional storage.

In view of the uncertainties regarding the availability of a repository, the Commission believes it would not be in the national interest to force utilities to shut down operation of otherwise satisfactorily operating nuclear power plants because of lack of storage capacity for spent fuel. Congress recognized this problem by authorizing, in Section 135 of the Nuclear Waste Policy Act of 1982, a Federal Interim Storage facility (IFIS). It is the Commission's intention that the 5,000 metric ton storage facility that it recommends likewise should be available in such contingencies.

This facility also should provide storage for: (a) shutdown reactors at sites where a utility no longer operates nuclear power facilities, and (b) utilities which would prefer to ship spent fuel to this facility rather than retain it onsite.

In view of the uncertainties which have existed as to the time of operation of the MRS and the repository, many utilities with newer reactors have already taken steps to provide needed life-of-plant storage, while others have expressed a preference for providing such storage themselves rather than relying on an MRS. For these reasons, the Commission believes it would be more equitable for the storage facility (UFIS) to be user funded, so that only those utilities that chose to use the facility would pay for it. Recommendation No. 3. Congress should reconsider the subject of interim storage by the year 2000 to:

(a) take into account uncertainties that exist today and which might be resolved or clarified within 10 years,

(b) consider developments which cannot be anticipated today, and (c) evaluate the experience with the two facilities recommended above.

Many uncertainties make it extremely difficult to plan for long-term interim storage of spent fuel. Although the opening of the repository is the most notable uncertainty, many other questions also must be resolved.

The Commission believes that the actions recommended above should be adequate to take care of the needs of interim storage at least until the year 2006. However, by the year 2000, Congress should reconsider the question of interim storage of spent fuel. At that time, Congress should take into account, among other things, such factors as: status of the repository; status of nuclear power plants; availability of at-reactor storage; utilization and adequacy of the 2,000 metric ton Federal Emergency Storage facility and the 5,000 metric ton User-Funded Interim Storage facility; status of technological developments in the storage of spent fuel; nuclear waste system optimization; and the fee schedule established for the UFIS.

The Monitored Retrievable Storage Review Commission believes that these recommendations would provide safe interim storage of spent nuclear fuel, would be consistent with the goals of the national nuclear waste management system, and would provide for flexibility and unforeseen contingencies.

United S	States Government	MOTION VOR	Department of Ene
me	morandu		ATTACHMENT
DATE:	SEP 2 8 1989	ê E24	
REPLY TO ATTN OF:	RW−2	A10E 0ER	
SUBJECT:	Interactions with the Nuc Consultants	clear Waste Technical Review	Board and its
TO:	Project Director, Yucca M	fountain Project Office	
	consultants will be deali Radioactive Waste Manager the Board in fulfilling i technical and scientific		s of the Civilian articipants should help nd open exchange of
		f all the program's interact: and contractors to follow th	
	either Jim Carlso	ing contact with the Board, o on (FTS 896-8892), Monica Fic anus (FTS 896-4495); and	
		the Board or its consultants id be sent to one of the above Franklin G Deputy Dire Office of Waste Mar	Peters ector Civilian Radioactive
	Attachment: Memo Dated 9/11/89 to Aland Contractors, Same S		
	AC CC CC CC CC	Blanchard/ H. Blanchard/ H. Barton	n ughes

REC'D IN WMPO

RECORD COPY

orandum

DATE:

3EP 11 **1389**

REPLY TO ATTN OF:

RW-2

SUBJECT:

Interactions with the Nuclear Waste Technical Review Board and its Consultants

TO:

All OCRWM Program Staff and Contractors

In the course of their work, the Nuclear Waste Technical Review Board and its consultants will be dealing with many different parts of the OCRWM program. All program participants should help the Board in fulfilling their mission through timely and open exchange of technical and scientific information.

In order to keep track of all the program's dealings with the Board, please follow two simple rules:

- Prior to initiating contact with the Board, coordinate with either Jim Carlson (6-8892) or Chris Hanus (6-4495); and
- If contacted by the Board or its consultants, a summary of 0 the interaction should be sent to one of the above.

ranklin G. Peters

Deputy Director

Office of Civilian Radioactive

Waste Management

TPO PRESENTATION

PRESENTED BY

CARL GERTZ PROJECT MANAGER

OCTOBER 6, 1989

EXHIBIT SUPPORT

AGENDA

- NUCLEAR WASTE TECHNICAL REVIEW BOARD
- PROTOTYPE DEVELOPMENT PROGRAM
- CURRENTISSUES
- POSSIBLE SECRETARIAL INITIATIVES
- OUTREACH ACTIVITIES
- PUBLIC UPDATE MEETINGS

NUCLEAR WASTE TECHNICAL REVIEW BOARD

• ENVIRONMENTAL AND HEALTH PANEL MEETING, 9/14/89

PROTOTYPE DEVELOPMENT **PROGRAM**

ISSUES OF CURRENT INTEREST

- PASSAGE OF STATE LAW A.B. 222
- STATE ANNOUNCEMENT OF REPOSITORY VETO
- AGREEMENT WITH UNIVERSITY OF NEVADA SYSTEM TO DO RESEARCH
- MANAGEMENT AND SUPPORT CONTRACTOR

POSSIBLE SECRETARIAL INITIATIVES

- RELATIONSHIP WITH WIPP
- DIRECT LINE REPORTING
- INDEPENDENT REVIEW OF MANAGEMENT STRUCTURE
- REVIEW OF SCHEDULE
- EARLY EMPHASIS ON SURFACE BASED TESTING TO IDENTIFY POTENTIALLY ADVERSE CONDITIONS

OUTREACH ACTIVITIES IN AUGUST AND SEPTEMBER

- PIOCHE CHAMBER OF COMMERCE
- INDUSTRIAL RELATIONS CONFERENCE
- ENERGY AND ENVIRONMENTAL CONFERENCE
- NATIONAL CONGRESS OF AMERICAN INDIANS
- NUCLEAR PLANT EXPERIENCE CONFERENCE
- ST. MATTHEWS EPISCOPAL CHURCH
- LAS VEGAS CHAMBER OF COMMERCE
- WEST CHARLESTON LIONS CLUB

OTHER INTERACTIONS

- OMB PRESENTATION
- RENO GAZETTE EDITORIAL BOARD
- YUCCA MOUNTAIN PROJECT PUBLIC UPDATE MEETINGS

PAHRUMP HENDERSON CARSON CITY **SEPTEMBER 25, 1989 SEPTEMBER 26, 1989**

SEPTEMBER 28, 1989

UPCOMING INTERACTIONS

JOINT POWER GENERAL CONFERENCE AMERICAN NUCLEAR SOCIETY

OCTOBER 26, 1989 NOVEMBER 26-30, 1989

YUCCA MOUNTAIN PROJECT HELD ITS THIRD SERIES OF PUBLIC MEETINGS IN SEPTEMBER IN PAHRUMP, HENDERSON AND CARSON CITY

- INFORMALLY SURVEYED NEVADANS ABOUT FORMAT AND TOPICS FOR MEETING
- MEETING TOPICS: GENERAL PROJECT OVERVIEW; TRANSPORTATION; SOCIOECONOMICS (PAHRUMP ONLY); VOLCANOES AND EARTHQUAKES AT OR NEAR YUCCA MOUNTAIN
- APPROXIMATELY 300 PEOPLE ATTENDED THE MEETINGS
 - EXTENSIVE MEDIA COVERAGE
- STATE OF NEVADA AND SOME LOCAL GOVERNMENT REPRESENTATIVES GAVE OPENING STATEMENTS



Department of Energy

Nevada Operations Office P. O. Box 98518 Las Vegas, NV 89193-8518 SEP 29 1989

WBS # 1.2.5.2.1 QA: N/A

Paul T. Prestholt NRC Site Representative 1050 East Flamingo Road Suite 319 Las Vegas, NV 89119

SITE AND ENGINEERING PROPERTIES DATA BASE (SEPDB)

The July 1989 SEPDB Quarterly Report is enclosed for your information. Your office is being placed on routine distribution for subsequent issues of the SEPDB quarterly reports as they become available.

Please contact Donald E. Livingston of my office at 794-7944, or Michael A. Glora of Science Applications International Corporation at 794-7609 if you have any questions.

Maxwell B. Blanchard, Director
Regulatory & Site Evaluation Division
Yucca Mountain Project Office

YMP: DEL-6054

Enclosure: SEPDB

cc w/o encl:

M. A. Glora, SAIC, Las Vegas, NV, 517/T-27

B. D. Foster, SAIC, Las Vegas, NV, 517/T-08

T. O. Hunter, SNL, 6310, Albuquerque, NM

L. E. Shepard, SNL, 6313, Albuquerque, NM

Margie Krebs-Jespersen, SNL, 6315, Albuquerque, NM

SITE AND ENGINEERING PROPERTIES DATABASE (SEPDB)

QUARTERLY REPORT

by

Margie Krebs-Jespersen Paula F. Adams Mary M. Gonzales

July 1989



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WORK REQUEST FORM	Appendix A
DATA INFORMATION FORM	Appendix A
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REPORT EXAMPLE #2 (SPECIFIC REPORT OUTPUT FORMAT REQUIRED)	Appendix C
REPORT EXAMPLE #3 (ASCII FILE FOR INPUT INTO STATISTICAL PACKAGE)	Appendix C

INTRODUCTION

The Site and Engineering Properties Database (SEPDB) is being developed and maintained by the Geoscience Analysis Division of Sandia National Laboratories for the Yucca Mountain Project. Its purpose is to provide a central location for "tabular" information on natural and engineered components of the prospective nuclear waste repository. The types of information stored in the database are defined in the Site Characterization Plan (SCP) parameters list.

Some of the most commonly encountered questions on the Site and Engineering Properties Database (SEPDB) are:

What types of information are in the system; and How can the system be accessed.

The SEPDB Quarterly Report lists types of data in the database, explains how data can be requested from the SEPDB and provides forms for data submittals.

Pages 5 through 22 of the Quarterly Report provide information on the contents of the database. Additionally, the database stores the QA level of the study and complete references. All of the information is available to any project participant by request to the Database Administrator following Project Administrative Procedure 5.2Q. Information requests from all other interested parties must be directed to the Yucca Mountain Project Manager.

Appendix A of the report consists of three forms. These include a Data Authorization Form, Work Request Form, and a Data Information Form. Project participants interact with the SEPDB through the use of these forms. The Data Authorization Form is used for submitting information to the database. The data submittal process is described in detail in Project Administrative Procedure 5.2Q.

The Work Request Form is used to request information from the database. Although this form is necessary for an official database product to be generated (official products may be referenced), database retrievals can be initiated with a phone call to the database administrator. For QA purposes the product is required to be hardcopy, but all information can also be supplied on magnetic media for ease in transport to another computer system. These files will be in ASCII format.

The Data Information Form is used to inform the database manager of information that could be used by more investigators or information that needs to be available in a computer system for various modeling activities. The information provided with these forms helps to ensure that data are available for the database users.

Appendix B is a listing of all new data submittals in the previous three months. The information in these submittals may not currently be included in the data dictionary but is available on request.

Appendix C shows excerpts from three reports. Report Example #1 was written in response to a request for a listing showing the thermal mechanical unit contacts for USW H-5 by elevation. The elevation was calculated by subtracting the interval top from the collar elevation. Example #2 was included to show that the report format depends on the requestors requirements. In this particular report the requestor wanted the report to match the format of an existing report. Again, the data were pulled from several tables and calculations made to present the data in the required format. The third example shows the ease in which data can be taken from the SEPDB and loaded into another software package (usually a statistical package). The request was for an ascii file designed to fit the format requirements of a particular statistical package.

The SEPDB staff will work with you to ensure the data are received in a format that meets your requirements.

Please direct any questions to:

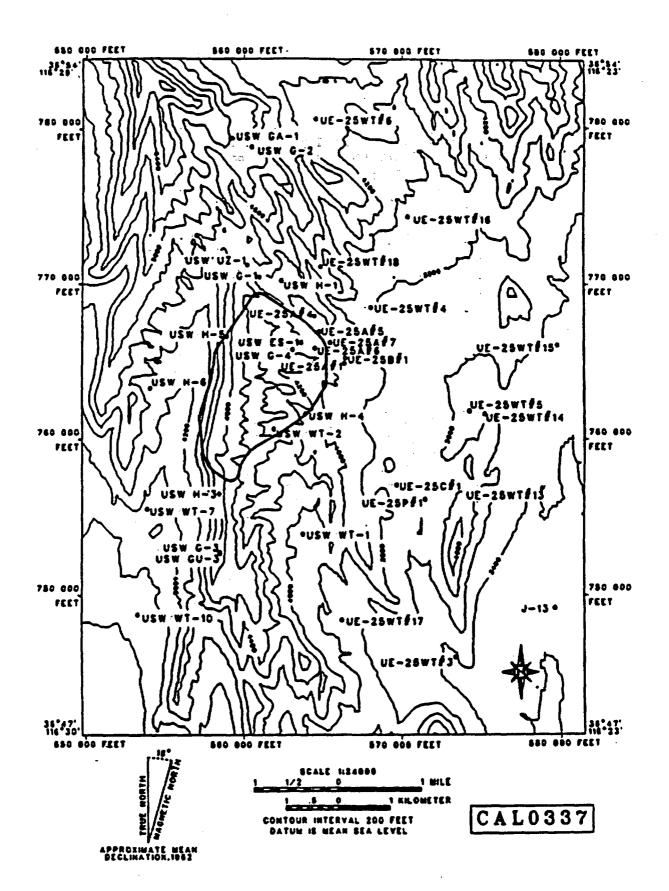
Margie Krebs-Jespersen Geoscience Analysis Division,
Sandia National Laboratories Geoscience Analysis Division, 6315 Albuquerque, NM 87185

FTS 846-1775

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CONTOUR HAP OF YUCCA MOUNTAIN VICINITY SHOWING DRILLHOLE LOCATIONS AND PROPOSED REPOSITORY OUTLINE

TYPES OF DATA CURRENTLY BEING STORED IN THE SEPDB

Bulk Density Values and Test Conditions
Bulk Modulus Data and Test Conditions Compressive Strength Data and Test Conditions Core Information, Intervals and Percent Recovery Cross Section Locations for Predicted Floods Drill-hole Locations, Surveys and Status Elastic Properties (Poisson's Ratio & Young's Mod.) Flood Predictions (100 yr, 500 yr & Regional Maximum) Grain Density Values and Test Conditions Hydraulic Conductivity Values and Test Conditions Laboratory Sonic Velocity Measurements Lithologic Unit Depths in Drill-hole Matrix Potential Data and Test Conditions Mineralogical Samples and Test Conditions Natural-state Pore-water Content Percentages Nevada Plane Coordinates for Bottom of Surveyed Drill-holes Paleomagnetic Data and Test Conditions Parameters for Measured Floods Percent Water Production in Drill-hole Intervals Pore Saturation and Test Conditions Porosity Values and Test Conditions Relative Hydraulic Conductivity Values and Test Conditions Storage Coefficient Values for Well Tests Thermal Conductivity Data and Test Conditions Thermal/Mechanical Stratigraphic Units Transmissivity Data and Pumping Conditions Water Chemistry Values and Test Conditions Water Elevations and Depths, Dates of Measurements Well Test Hydraulic Conductivity Heasurements

HOLE .	TYPE OF DATA	REFERENCE CITATION
J-11 Vate	Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197
J-12	Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197
Grain Hydra Litho Pore Natur Poros Labor Trans Vater	Density Values and Test Conditions Density Values and Test Conditions Density Values and Test Conditions Delogic Unit Depths in Drill-hole Saturation and Test Conditions Delogic Values and Pumping Conditions Delogic Values and Test Conditions Delogic Values and Test Conditions Delogic Values and Depths, Dates of Measurements	USGS WRIR 83-4171 USGS WRIR 83-4171
UE-16d Vater Vater	Chemistry Values and Test Conditions Elevations and Depths, Dates of Measurements	USGS 1543-3 USGS 1543-3
UE-16f Vater Vater	Chemistry Values and Test Conditions Elevations and Depths, Dates of Measurements	USGS 1543-3 USGS 1543-3
UE-17a Vater	Chemistry Values and Test Conditions	USGS 1543-4
UE-25 VI Vater	#12 Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197
UE-25 W Vater	#13 Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197
UE-25 W Water	: #14 : Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197
UE-25 W	#15 Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197
UE-25 WI Water	#16 Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197

HOLE	TYPE OF DATA	REFERENCE CITATION
UE-25 WT #17 Vater Elevations an	d Depths, Dates of Measurements	USGS WRIR 84-4197
UE-25 WT #3 Water Elevations an	d Depths, Dates of Measurements	
UE-25 WT #4 Water Elevations an	d Depths, Dates of Measurements	USGS WRIR 84-4197
UE-25 WT #6 Water Elevations an	d Depths, Dates of Measurements	USGS WRIR 84-4197
•	and Test Conditions	SAND88-0811 USGS OFR 81-1338
	s and Test Conditions es and Test Conditions Test Conditions	SAND88-0811 USGS OFR 81-1338 USGS OFR 84-491 SAND88-0811 USGS OFR 81-1338
Laboratory Sonic Ve Thermal/Mechanical	locity Measurements Stratigraphic Units	USGS OFR 81-1338 SAND84-1076
UE-25a #4 Thermal/Mechanical	Stratigraphic Units	SAND84-1076
UE-25a #5 Thermal/Mechanical	Stratigraphic Units	SAND84-1076
UE-25a #6 Thermal/Mechanical		SAND84-1076
UE-25a #7 Thermal/Mechanical	Stratigraphic Units	SAND84-1076
Grain Density Value Hydraulic Conductiv Lithologic Unit Dep Pore Saturation and		USGS VRIR 84-4253 USGS VRIR 84-4253 USGS VRIR 84-4253 USGS VRIR 84-4253 USGS VRIR 84-4253 USGS OFR 83-855 USGS VRIR 84-4253
Transmissivity Data Water Chemistry Val	Test Conditions Stratigraphic Units and Pumping Conditions ues and Test Conditions Conductivity Heasurements	USGS WRIR 84-4253 SAND84-1076 USGS WRIR 84-4253 USGS OFR 83-855 USGS WRIR 84-4253 USGS WRIR 84-4253

HOLE	TYPE OF DATA	REFERENCE CITATION
	#1 (continued) er Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197 USGS WRIR 84-4253
UE-25c Wate	#1 er Elevations and Depths, Dates of Measurements	USGS WRIR 84-4197
Tran Vate	#1 cologic Unit Depths in Drill-hole asmissivity Data and Pumping Conditions or Chemistry Values and Test Conditions or Elevations and Depths, Dates of Measurements	USGS OFR 84-450 USGS WRIR 84-4248 USGS WRIR 84-4248 USGS OFR 84-450 USGS WRIR 84-4197 USGS WRIR 84-4248
	#1 er Chemistry Values and Test Conditions er Elevations and Depths, Dates of Measurements	USGS OFR 84-142 USGS OFR 84-142
	#2 or Chemistry Values and Test Conditions or Elevations and Depths, Dates of Measurements	USGS OFR 84-142 USGS OFR 84-142
USW G-1 Bulk	Density Values and Test Conditions	SAND88-0811 UCLR-53602 UCLR-53645
Grai	n Density Values and Test Conditions	SAND88-0811 UCLR-53645
	eralogical Samples and Test Conditions sity Values and Test Conditions	USGS OFR 84-491 SAND88-0811 UCLR-53602 UCLR-53645
Ther	mal Conductivity Data and Test Conditions mal/Hechanical Stratigraphic Units er Elevations and Depths, Dates of Measurements	SAND88-0624 SAND84-1076 USGS VRIR 84-4197
Comp Elas Grai Lith Mine Pord Ther	Density Values and Test Conditions pressive Strength Data and Test Conditions price Properties (Poisson's Ratio & Young's Mod.) In Density Values and Test Conditions prologic Unit Depths in Drill-hole pralogical Samples and Test Conditions posity Values and Test Conditions promal Conductivity Data and Test Conditions promal/Mechanical Stratigraphic Units per Elevations and Depths, Dates of Measurements	SAND88-0811 SAND85-0703 SAND85-0703 SAND88-0811 USGS OFR 83-732 USGS OFR 83-732 USGS OFR 84-491 SAND88-0811 SAND88-0624 SAND84-1076 USGS WRIR 84-4197

HOLE	TYPE OF DATA	REFERENCE CITATION
Grain Densi Lithologic Mineralogic Porosity Va Laboratory	y Values and Test Conditions ty Values and Test Conditions Unit Depths in Drill-hole al Samples and Test Condition lues and Test Conditions Sonic Velocity Measurements tions and Depths, Dates of Me	USGS OFR 84-491 USGS OFR 84-491 USGS OFR 84-552 USGS OFR 84-552
• • •	y Values and Test Conditions	SAND88-0811
Grain Densi	ty Values and Test Conditions	UCLR-53795
	Unit Depths in Drill-hole al Samples and Test Condition	USGS OFR 84-552 USGS OFR 84-063 S LA-10927-MS USGS OFR 84-789
Porosity Va	lues and Test Conditions	SAND88-0811 UCLR-53795 USGS OFR 84-552
Thermal Con Thermal/Mec Transmissiv	Sonic Velocity Measurements ductivity Data and Test Condi hanical Stratigraphic Units ity Data and Pumping Conditio stry Values and Test Conditio	USGS OFR 84-552 tions SAND88-0624 SAND84-1076 ns USGS VRIR 86-4015
	ydraulic Conductivity Measure tions and Depths, Dates of Me	ments USGS WRIR 86-4015
USV GU-3 Bulk Densit	y Values and Test Conditions	SAND88-0811
Grain Densi	ty Values and Test Conditions	USGS OFR 84-552 SAND88-0811 USGS OFR 84-552
Mineralogic Paleomagnet	Unit Depths in Drill-hole al Samples and Test Condition ic Data and Test Conditions lues and Test Conditions	USGS OFR 84-491
Thermal Con-	Sonic Velocity Measurements ductivity Data and Test Condi hanical Stratigraphic Units	USGS OFR 84-552
USW H-1 Bulk Densit	y Values and Test Conditions	USGS WRIR 84-4032 USGS WRIR 84-4193

ROLE .	TYPE OF DATA	REFERENCE CITATION
USV H-1 (continued) Grain Density Value	s and Test Conditions	USGS WRIR 84-4032 USGS WRIR 84-4193
Lithologic Unit Dep Matrix Potential Da Pore Saturation and	ity Values and Test Conditions ths in Drill-hole ta and Test Conditions Test Conditions water Content Percentages	USGS WRIR 84-4032 USGS WRIR 84-4032 USGS WRIR 84-4193 USGS WRIR 84-4032
Storage Coefficient Thermal/Mechanical Transmissivity Data Vater Chemistry Val Vell Test Hydraulic	Conductivity Values and Test Cor Values for Well Tests Stratigraphic Units and Pumping Conditions ues and Test Conditions Conductivity Measurements d Depths, Dates of Measurements	usgs vrir 84-4193 usgs vrir 84-4032 sand84-1076 usgs vrir 84-4032 usgs vrir 84-4032 usgs vrir 84-4032
Thermal/Mechanical Transmissivity Data Well Test Hydraulic	ths in Drill-hole Values for Well Tests Stratigraphic Units and Pumping Conditions Conductivity Measurements d Depths, Dates of Measurements	USGS WRIR 84-4272 USGS WRIR 84-4272 SAND84-1076 USGS WRIR 84-4272 USGS WRIR 84-4272
Thermal/Mechanical Transmissivity Data Water Chemistry Val Well Test Hydraulic	oths in Drill-hole action in Drill-hole Intervals Stratigraphic Units and Pumping Conditions ues and Test Conditions Conductivity Measurements and Depths, Dates of Measurements	USGS WRIR 85-4030 USGS WRIR 85-4030 SAND84-1076 USGS WRIR 85-4030 USGS WRIR 85-4030 USGS WRIR 85-4030 USGS WRIR 84-4197 USGS WRIR 85-4030
Water Chemistry Val	oths in Drill-hole Stratigraphic Units Lues and Test Conditions and Depths, Dates of Measurements	USGS OFR 83-853 SAND84-1076 USGS OFR 83-853 USGS OFR 83-853 USGS WRIR 83-4171 USGS WRIR 84-4197
Vater Chemistry Val	Stratigraphic Units Lues and Test Conditions ad Depths, Dates of Measurements	SAND84-1076 USGS OFR 83-856 USGS OFR 83-856 USGS WRIR 84-4197

HOLE	TYPE OF	DATA	REFEREN	CE CITATION
Water Chemi Water Eleva		rill-hole Test Conditions , Dates of Measuremer	USGS 1	
	Unit Depths in Dr Itions and Depths,	rill-hole , Dates of Heasuremer		OFR 85-475 JRIR 84-4197
USW WT-1 Water Eleva	tions and Depths,	, Dates of Measuremen	its USGS 1	WRIR 84-4197
USW WT-10 Water Eleva	tions and Depths,	Dates of Measuremen	its USGS	WRIR 84-4197
USW WT-11 Water Eleva	tions and Depths,	, Dates of Measuremen	nts USGS	WRIR 84-4197
USW WT-2 Water Eleva	tions and Depths,	, Dates of Measuremen	nts USGS	WRIR 84-4197
USW WT-7 Water Eleva	tions and Depths,	, Dates of Measuremen	nts USGS	WRIR 84-4197

TYPE OF DATA CURRENTLY AVAILABLE IN THE SEPDB FOR NON-CORE SAMPLES

TYPE OF DATA	REFERENCE CITATION
Non-Core Samples:	**
Bulk Density Values and Test Conditions	SAND88-0811
Bulk Modulus Data and Test Conditions	SAND86-1131
Compressive Strength Data and Test Conditions	SAND86-1131 .
Elastic Properties (Poisson's Ratio & Young's Mod.)	SAND86-1131
Parameters for Measured Floods	USGS WRIR 83-4001
Cross Section Locations for Predicted Floods	USGS WRIR 83-4001
Flood Predictions (100 yr, 500 yr & Regional Maximum)	USGS WRIR 83-4001
Grain Density Values and Test Conditions	SAND88-0811
Mineralogical Samples and Test Conditions	SAND86-1131
	USGS OFR 84-491
Porosity Values and Test Conditions	SAND88-0811

(Arranged by Drill Hole and Reference Citation)

Bulk Density Values and Test Conditions:

Non-core Samples	SAND88-0811
J-13	USGS WRIR 83-4171
UE-25a #1	SAND88-0811
	USGS OFR 81-1338
UE-25b #1	. USGS WRIR 84-4253
USV G-1	SAND88-0811
· · · · · · · · · · · · · · · · · · ·	UCLR-53602
e e e e e e e e e e e e e e e e e e e	UCLR-53645
USW G-2	SAND88-0811
USW G-3	USGS OFR 84-552
USW G-4	SAND88-0811
	UCLR-53795
	USGS OFR 84-552
USW GU-3	SAND88-0811
	USGS OFR 84-552
USV H-1	USGS VRIR 84-4032
	USGS WRIR 84-4193

Bulk Modulus Data and Test Conditions:

Non-core Samples	SAND86-1131
------------------	-------------

Compressive Strength Data and Test Conditions:

Non-core Samples		SAND86-1131	
USW G-2	•	SAND85-0703	

Cross Section Locations for Predicted Floods:

Non-core Samples	USGS WRIR 83-4001
------------------	-------------------

Elastic Properties (Poisson's Ratio & Young's Mod.):

Non-core	Samples	SAND86-1131
USW G-2	•	SAND85-0703

Flood Predictions (100 yr, 500 yr & Regional Maximum):

Non-core	Camples	HECE	UPTP	83-4001
NON-COLE	Sambles	0363	MUTU	0.3=4UU1

Grain Density-Values and Test Conditions:

Non-core Samples J-13	SAND88-0811 USGS WRIR 83-4171	
UE-25a #1	SAND88-0811	
	USGS OFR 81-1338	
UE-25b #1	USGS WRIR 84-4253	

(Arranged by Drill Hole and Reference Citation)

Grain Density Values and Test Conditions (continued):

USW G-1	بيريدون أست	SAND88-0811
•		UCLR-53645
USW G-2		SAND88-0811
USW G-3		USGS OFR 84-552
USW G-4		SAND88-0811
	•	UCLR-53795
		USGS OFR 84-552
USW GU-3	•	SAND88-0811
•		USGS OFR 84-552
USW H-1		USGS WRIR 84-4032
•		USGS WRTR 84-4193

Hydraulic Conductivity Values and Test Conditions:

J-13	USGS WRIR 83-4171
UE-25b #1	USGS WRIR 84-4253
USW H-1	USGS WRIR 84-4032

Laboratory Sonic Velocity Measurements:

J-13	USGS VRIR 83-4171
UE-25a #1	USGS OFR 81-1338
USV G-3	USGS OFR 84-552
USV G-4	USGS OFR 84-552
USV GU-3	USGS OFR 84-552

Lithologic Unit Depths in Drill-hole:

J-13	USGS WRIR 83-4171
UE-25b #1	USGS WRIR 84-4253
UE-25p #1	USGS OFR 84-450
USV G-2	USGS OFR 83-732
USV G-3	USGS OFR 84-491
USV G-4	USGS OFR 84-063
USW GU-3	USGS OFR 84-491
USW H-1	USGS WRIR 84-4032
USV E-3	USGS WRIR 84-4272
USV E-4	USGS WRIR 85-4030
USV E-5	USGS OFR 83-853
USV VH-1	USGS OFR 82-457
USW VH-2	USGS OFR 85-475

Matrix Potential Data and Test Conditions:

USV H-1	USGS VRIR 84-4193

TYPE OF DATA CURRENTLY AVAILABLE IN THE SEPDE ORGANIZED BY DATA TYPE

(Arranged by Drill Hole and Reference Citation)

Mineralogical Samples and Test Conditions:

Non-core Samples	<u>.</u> — .	SAND	36-13	131
Non-core Samples		USGS	OFR	84-491
UE-25a #1	•	USGS	OFR	84-491
USV G-1	• · · · · · · · · · · · · · · · · · · ·	USGS	OFR	84-491
"USW G-2	17 72	USGS	OFR	83-732
		USGS	OFR	84-491
USV G-3		USGS	OFR	84-491
USW G-4	•	LA-10)927 -	-MS
•		USGS	OFR	84-789
USV GU-3		USGS	OFR	84-491

Natural-state Pore-water Content Percentages:

J-13 UE-25b #1	USGS WRIR 83-4171 USGS OFR 83-855
USW H-1	USGS WRIR 84-4253 USGS WRIR 84-4032
and Test Conditions:	19 m 19 m 19 m

USGS WRIR 83-4001

USGS WRIR 84-4032

Paleomagnetic Data and Test Conditions:

USV GU-3	USGS OFR 85-48
$\phi_{ij} = \mathcal{Y}_{ij} + \mathcal{Y}_{ij}$	

Non-core Samples

Parameters for Measured Floods:

Percent Water Produc	ction in Drill-hole Intervals:		v	~ ;
	USW H-4	USGS	WRIR	85-4030
Pore Saturation and	Test Conditions:			
	J-13 UE-25b #1			83-4171 84-4253

Porosity Values and Test Conditions:

USV H-1

Non-core Samples J-13	SAND88-0811 USGS VRIR 83-4171
UE-25a #1	SAND88-0811
	USGS OFR 81-1338
UE-25b #1	USGS WRIR 84-4253
USW G-1	SAND88-0811
	UCLR-53602
•	UCLR-53645
IISV G-2	SAND88-0811

TYPE OF DATA CURRENTLY AVAILABLE IN THE SEPDB ORGANIZED BY DATA TYPE

(Arranged by Drill Hole and Reference Citation)

Porosity Values and Test Conditions (continued):

USW G-3	USGS OFR 84-552
USW G-4	SAND88-0811
	UCLR-53795
	USGS OFR 84-552
USV GU-3	SAND88-0811
	USGS OFR 84-552
USV H-1	USGS VRIR 84-4032
	USGS VRTR 84-4193

Relative Hydraulic Conductivity Values and Test Conditions:

		USW H-1	USGS	WRIR	84-4193
Storage	Coefficient	Values for Well Tests:			
	. • • ·	USW H-1	USGS	WRIR	84-4032
		USW H-3	USGS	VRIR	84-4272
Thermal	Conductivity	v Data and Test Conditions:			

Thermal Conductivity Data and Test Conditions:

USV G-1	SAND88-0624
USV G-2	SAND88-0624
USV G-4	SAND88-0624
USV GU-3	SAND88-0624

Thermal/Mechanical Stratigraphic Units:

UE-25a #1	SAND84-1076
UE-25a #4	SAND84-1076
UE-25a #5	SAND84-1076
UE-25a #6	SAND84-1076
UE-25a #7	SAND84-1076
UE-25b #1	SAND84-1076
USV G-1	SAND84-1076
USV G-2	SAND84-1076
USV G-4	SAND84-1076
USV GU-3	SAND84-1076
USV H-1	SAND84-1076
USV H-3	SAND84-1076
USV H-4	SAND84-1076
USV H-5	SAND84-1076
USW H-6	SAND84-1076

Transmissivity Data and Pumping Conditions:

J-13	USGS WRIR 83-417	1
UE-25b #1	USGS WRIR 84-425	i3
UE-25p #1	USGS WRIR 84-424	8
USV G-4	USGS WRIR 86-401	.5

TYPE OF DATA CURRENTLY AVAILABLE IN THE SEPDB ORGANIZED BY DATA TYPE

(Arranged by Drill Hole and Reference Citation)

Transmissivity Data and Pumping Conditions (continued):

USW H-1	USGS WRIR 84-4032
USW H-3	USGS WRIR 84-4272
USW H-4	USGS WRIR 85-4030

Water Chemistry Values and Test Conditions:

J-13	USGS WRIR 83-4171
UE-16d	. USGS 1543-3
UE-16f	USGS 1543-3
UE-17a	USGS 1543-4
UE-25b #1	USGS OFR 83-855
	USGS WRIR 84-4253
UE-25p #1	USGS WRIR 84-4248
UE-29a #1	USGS OFR 84-142
UE-29a #2	USGS OFR 84-142
USV G-4	USGS OFR 84-063
	USGS WRIR 86-4015
USV H-1	USGS VRIR 84-4032
USV H-4	USGS VRIR 85-4030
USV H-5	USGS OFR 83-853
USV H-6	USG\$ OFR 83-856
USV VH-1	USGS WRIR 86-4359

Vater Elevations and Depths, Dates of Measurements:

J-11	USGS WRIR 84-4197
J-12	USGS WRIR 84-4197
J-13	USGS WRIR 84-4197
UE-16d	USGS 1543-3
UE-16f	USGS 1543-3
UE-25 WT #12	USGS VRIR 84-4197
UE-25 WT #13	USGS WRIR 84-4197
UE-25 VT #14	USGS VRIR 84-4197
UE-25 VT #15	USGS VRIR 84-4197
UE-25 WT #16	USGS WRIR 84-4197
UB-25 WT #17	USGS WRIR 84-4197
UB-25 VT #3	USGS WRIR 84-4197
UE-25 VT #4	USGS WRIR 84-4197
UE-25 WT #6	USGS WRIR 84-4197
UE-25b #1	USGS WRIR 84-4197
	USGS VRIR 84-4253
UE-25c #1	USGS WRIR 84-4197
UE-25p #1	USGS OFR 84-450
05-536 #1	USGS WRIR 84-4197
	USGS WRIR 84-4248
UE-29a #1	USGS OFR 84-142
UE-29a #2	USGS OFR 84-142
USV G-1	USGS WRIR 84-4197
USV G-2	USGS WRIR 84-4197

TYPE OF DATA CURRENTLY AVAILABLE IN THE SEPDB ORGANIZED BY DATA TYPE (Arranged by Drill Hole and Reference Citation)

Water Elevations and Depths, Dates of Measurements (continued):

USW G-4 USGS OFR 84-063 USGS WRIR 84-4197 USW H-1 USGS WRIR 84-4197 USW H-3 USGS WRIR 84-4197 USGS WRIR 84-4197 USGS WRIR 85-4030 USW H-5 USGS OFR 83-853 USGS WRIR 84-4197 USGS WRIR 84-4197 USW H-6 USGS WRIR 84-4197 USW VH-1 USGS WRIR 84-4197 USW VH-2 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-12 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197 USW WT-12 USGS WRIR 84-4197		
USGS WRIR 84-4197 USW H-1 USGS WRIR 84-4032 USGS WRIR 84-4197 USW H-3 USGS WRIR 84-4197 USGS WRIR 84-4197 USGS WRIR 85-4030 USW H-5 USGS WRIR 83-853 USGS WRIR 84-4197 USW H-6 USGS WRIR 84-4197 USW VH-1 USGS WRIR 84-4197 USW VH-2 USGS WRIR 84-4197 USW WT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-12 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197	USV G-3	USGS WRIR 84-4197
USGS WRIR 84-4197 USV H-1 USGS WRIR 84-4032 USGS WRIR 84-4197 USV H-3 USGS WRIR 84-4197 USGS WRIR 84-4197 USGS WRIR 85-4030 USV H-5 USGS WRIR 83-853 USGS WRIR 83-4171 USGS WRIR 84-4197 USV H-6 USGS WRIR 84-4197 USV VH-1 USGS WRIR 84-4197 USV VT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-12 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197	USV G-4	USGS OFR 84-063
USV H-1 USGS VRIR 84-4032 USGS VRIR 84-4197 USV H-3 USGS VRIR 84-4197 USGS VRIR 84-4197 USGS VRIR 85-4030 USV H-5 USGS VRIR 83-853 USGS VRIR 83-4171 USGS VRIR 84-4197 USV H-6 USGS VRIR 84-4197 USV VH-1 USGS VRIR 84-4197 USV VH-2 USGS VRIR 84-4197 USV VT-1 USGS VRIR 84-4197 USV VT-1 USGS VRIR 84-4197 USV VT-2 USGS VRIR 84-4197		* *
USGS WRIR 84-4197 USV E-3 USGS WRIR 84-4197 USGS WRIR 84-4197 USGS WRIR 85-4030 USV E-5 USGS WRIR 83-853 USGS WRIR 84-4197 USV E-6 USGS WRIR 84-4197 USV VE-1 USGS WRIR 84-4197 USV VH-2 USGS WRIR 84-4197 USV WT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197 USW WT-12 USGS WRIR 84-4197 USW WT-2	USV H-1	
USV H-3 USGS WRIR 84-4197 USV H-4 USGS WRIR 84-4197 USGS WRIR 85-4030 USV H-5 USGS WRIR 83-853 USGS WRIR 84-4197 USV H-6 USGS WRIR 84-4197 USV VH-1 USGS WRIR 84-4197 USV VT-1 USGS WRIR 84-4197 USV WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-12 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197		
USW H-4 USGS WRIR 84-4197 USGS WRIR 85-4030 USW H-5 USGS WRIR 83-853 USGS WRIR 84-4197 USW H-6 USGS OFR 83-856 USGS WRIR 84-4197 USW VH-1 USGS WRIR 84-4197 USW VT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-1 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197	IISM H-3	
USGS WRIR 85-4030 USV H-5 USGS OFR 83-853 USGS WRIR 83-4171 USGS WRIR 84-4197 USV H-6 USGS OFR 83-856 USGS WRIR 84-4197 USV VH-1 USGS WRIR 84-4197 USV VH-2 USGS WRIR 84-4197 USV WT-1 USGS WRIR 84-4197 USV WT-10 USGS WRIR 84-4197 USV WT-2 USGS WRIR 84-4197 USV WT-2 USGS WRIR 84-4197		
USV H-5 USGS OFR 83-853 USGS WRIR 83-4171 USGS WRIR 84-4197 USV H-6 USGS OFR 83-856 USGS WRIR 84-4197 USV VH-1 USGS WRIR 84-4197 USV VH-2 USGS WRIR 84-4197 USV VT-1 USGS WRIR 84-4197 USV VT-10 USGS WRIR 84-4197 USV VT-2 USGS WRIR 84-4197 USV VT-2 USGS WRIR 84-4197	USV H-4	USGS VRIR 84-4197
USGS WRIR 83-4171 USGS WRIR 84-4197 USV H-6 USGS OFR 83-856 USGS WRIR 84-4197 USV VH-1 USV VH-2 USGS WRIR 84-4197 USV WT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197		USGS WRIR 85-4030
USGS WRIR 84-4197 USV H-6 USGS OFR 83-856 USGS WRIR 84-4197 USV VH-1 USS WRIR 84-4197 USV VH-2 USGS WRIR 84-4197 USW WT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197	USV H-5	USGS OFR 83-853
USGS WRIR 84-4197 USV H-6 USGS OFR 83-856 USGS WRIR 84-4197 USV VH-1 USS WRIR 84-4197 USV VH-2 USGS WRIR 84-4197 USW WT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197		USGS WRIR 83-4171
USU H-6 USGS OFR 83-856 USGS WRIR 84-4197 USV VH-1 USU VH-2 USGS WRIR 84-4197 USW VT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197	•	
USGS WRIR 84-4197 USV VH-1 USGS WRIR 84-4197 USV VH-2 USGS WRIR 84-4197 USV WT-1 USGS WRIR 84-4197 USW WT-10 USGS WRIR 84-4197 USW WT-11 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197	USV H-6	
USV VH-1 USGS WRIR 84-4197 USV VH-2 USGS WRIR 84-4197 USV WT-1 USGS WRIR 84-4197 USV WT-10 USGS WRIR 84-4197 USV WT-11 USGS WRIR 84-4197 USV WT-2 USGS WRIR 84-4197	33	
USW VH-2 USGS WRIR 84-4197 USW VT-1 USGS WRIR 84-4197 USW VT-10 USGS WRIR 84-4197 USW VT-11 USGS WRIR 84-4197 USW VT-2 USGS WRIR 84-4197	USV VH_1	
USW VT-1 USGS VRIR 84-4197 USW VT-10 USGS VRIR 84-4197 USW VT-11 USGS VRIR 84-4197 USW VT-2 USGS VRIR 84-4197		
USW VT-10 USGS VRIR 84-4197 USW VT-11 USGS VRIR 84-4197 USW VT-2 USGS VRIR 84-4197	nga Au-S	USGS WKIR 84-419/
USW WT-11 USGS WRIR 84-4197 USW WT-2 USGS WRIR 84-4197	USW WT-1	USGS WRIR 84-4197
USW WT-2 USGS WRIR 84-4197	USW WT-10	USGS VRIR 84-4197
	USW WT-11	USGS VRIR 84-4197
HCU UT_7 HCCC UDTD 94_4107	USW WT-2	USGS WRIR 84-4197
	USV VT-7	USGS VRIR 84-4197

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Well Test Hydraulic Conductivity Measurements:

J-13	USGS VRIR 83-4171
UE-25b #1	USGS WRIR 84-4253
USV G-4	USGS VRIR 86-4015
USV H-1	USGS WRIR 84-4032
USV H-3	USGS WRIR 84-4272
USV E-4	USGS WRIR 85-4030

LIST OF DRILL HOLES FOR WHICH COORDINATES ARE AVAILABLE IN THE SEPDB

USW Holes	UE Holes	Seismic Holes	Other Holes
* USW ES-1	UE-16d	U-25 Seismic #10 U-25 Seismic #11 U-25 Seismic #12 U-25 Seismic #13 U-25 Seismic #14 U-25 Seismic #15 U-25 Seismic #16 U-25 Seismic #16 U-25 Seismic #17 U-25 Seismic #18 U-25 Seismic #19 U-25 Seismic #19 U-25 Seismic #20 U-25 Seismic #20 U-25 Seismic #21 U-25 Seismic #21 U-25 Seismic #21 U-25 Seismic #23 U-25 Seismic #24 U-25 Seismic #24 U-25 Seismic #3 U-25 Seismic #3 U-25 Seismic #5 U-25 Seismic #6 U-25 Seismic #6 U-25 Seismic #6 U-25 Seismic #7 U-25 Seismic #7 U-25 Seismic #1 U-30 Seismic #1	J-11
TOW ES-Z	US-16I	U-25 Seismic #10	J-12
USW G-1	+ HP 25 0 6	U-25 Seismic #11	J-13
11SV G_3	- UE-ZJ G-J	U-25 Seismic #12	PS CAROLYN
USV G-4	117-25 PF 410	U-25 Seismic #13	PS SANDY
USV GA-1	112-25 RF #10	U-25 Seismic #14	Test Hole #1
USV GU-3	IIE_25 DF 42	U-25 Seismic #15	* Test Hole #10
* USW GX	UE_25 RP #3	U-25 Seismic #16	* Test Hole #11
* USW GY	UE-25 RF #3R	U-25 Seismic #1/	* Test Hole #12
USV H-1	UE-25 RF #4	II_25 Selemia #10	* Test Hole #13
USV H-3	UE-25 RF #5	II-25 Seismic #2	* Test Hole #14
USV H-4	* UE-25 RF #6	U-25 Seismic #20	. Test note #10
USV H-5	UE-25 RF #7	U-25 Seismic #21	Test note #2
USW H-6	UE-25 RF #7A	U-25 Seismic #27	Test noie #5
* USW H-WEST	UE-25 RF #8	U-25 Seismic #23	Test noie #4
USV SP SA	UE-25 RF #9	U-25 Seismic #24	Test Hole #5
USW SP 5B	UE-25 TC #1	U-25 Seismic #3	* Test Hole #7
usv uz-1	UE-25 TC #2	U-25 Seismic #4	* Test Hole #8
USW UZ-13	UE-25 TC #3	U-25 Seismic #5	* Test Pit #1
* USW UZ-2	UE-25 TC #4	U-25 Seismic #6	* Test Pit \$2
* USW UZ-3	UE-25 TC1 #1	U-25 Seismic #7	* Test Pit #3
* USW UZ-4	UE-25 TC1 #2	U-25 Seismic #8	* Test Pit #6
* USW UZ-5	UE-25 TC1 #3	U-25 Seismic #9	
USW UZ-6	UE-25 TC1 #4	U-26 Seismic #1	
* USW UZ-68	UE-25 UZ #4	U-29 Seismic #1	
024 05-62	UE-25 UZ #5	U-30 Seismic #1	
USW UZ-/	UE-25 UZN #1	U-30 Seismic #2	
+ 11C11 114 714	UE-25 UZN #10	U-5 Seismic #1	
- 11ch 11d 11d 1	UE-25 UZN #12	U-5 Seismic #2	
11CU 117 NOE	UE-25 UZN #13	US-25 Seismic #1	
1120 112-122 1120 112-122	UE-25 UZN \$14	US-25 Seismic #10	
★ IICU II7_N2	UE-25 UZN \$18	US-25 Seismic #11	
IISV IIZ_NAO	UB-23 UZN #19	US-25 Seismic #12	
USV 117_N41	112-25 UZN 42	US-25 Seismic #13	
USV UZ-NA2	UE-25 UZN #21	US-25 Seismic #14	
USW UZ-N43	UB-25 UZN #22	US-25 Seismic #15	
USW UZ-N44	UE-25 UZN #23	US-25 Seismic #16	
USW UZ-N45	UE-25 UZN #28	US-25 Seismic #17	
USW UZ-N46	UE-25 UZN #29	US-25 Seismic #18	
USW UZ-N47 -	UE-25 UZN #3	US-25 Seismic #19	
USV UZ-N48	UE-25 UZN #30	US-25 Seismic #2	
USV UZ-N49	UE-25 UZN #4	US-25 Seismic #20 US-25 Seismic #21	
USV UZ-N50	UE-25 UZN #5	US-25 Seismic #21	
USV UZ-N51	UE-25 UZN #56	US-25 Seismic #4	
· - · • • •	ANI AND	03-63 3612M1C 44	

^{*} Layout Drill-hole

LIST OF DRILL HOLES FOR WHICH COORDINATES ARE AVAILABLE IN THE SEPDB

Other Holes

USV UZ-N65 USV UZ-N65 USV UZ-N66 USV UZ-N66 USV UZ-N66 USV UZ-N67 USV UZ-N66 USV UZ-N68 USV UZ-N68 USV UZ-N69 USV UZ-N69 USV UZ-N69 USV UZ-N69 USV UZ-N71 USV UZ-N71 USV UZ-N71 USV UZ-N72 USV UZ-N72 USV UZ-N72 USV UZ-N73 USV UZ-N74 USV UZ-N75 USV UZ-N75 USV UZ-N75 USV UZ-N76 USV UZ-N77 USV UZ-N78 USV UZ-N79 USV UZ-N79 USV UZ-N80 USV UZ-N81 USV UZ-N81 USV UZ-N81 USV UZ-N82 USV UZ-N84 USV UZ-N86 US-25 WF #19 USV UZ-N86 US-25 WF #4 USV UZ-N87 US-25 WF #4 USV UZ-N88 US-25 WF #4 USV UZ-N89 US-25 WF #6 USV UZ-N89 US-25 WF #6 USV UZ-N89 US-25 WF #19 USV UZ-N89 US-25 WF #4 USV UZ-N89 US-25 WF #6 USV UZ-N89 WF #6 US-25 WF #	USW Holes	UE Holes	Seismic Holes
USV UZ-N69 USV UZ-N70 UE-25 UZN #97 USV UZ-N71 USV UZ-N72 UE-25 UZNC #1 USV UZ-N72 UE-25 UZNC #2 USV UZ-N73 UE-25 UZNC #2 USV UZ-N73 UE-25 VZNC #2 USV UZ-N73 UE-25 VT #12 USV UZ-N76 UE-25 VT #13 USV UZ-N77 UE-25 VT #16 USV UZ-N77 UE-25 VT #16 USV UZ-N77 UE-25 VT #16 USV UZ-N79 UE-25 VT #17 USV UZ-N79 UE-25 VT #16 USV UZ-N80 * UE-25 VT #19 USV UZ-N80 * UE-25 VT #19 USV UZ-N80 * UE-25 VT #3 USV UZ-N81 * UE-25 VT #3 USV UZ-N84 UE-25 VT #3 USV UZ-N86 UE-25 VT #4 USV UZ-N88 * UE-25 VT #4 USV UZ-N86 UE-25 VT #6 USV UZ-N86 UE-25 VT #6 USV UZ-N88 * UE-25 #1 USV UZ-N89 UE-25a #1 USV UZ-N89 UE-25a #4 USV UZ-N90 UE-25a #4 USV UZ-N90 UE-25a #6 USV UZ-N96 USV UZ-N96 UE-25b #1 USV UZ-N96 UE-25b #1 USV UZ-N96 UE-25c #2 USV UZ-N96 UE-25c #1 USV UZ-N96 UE-25c #3 USV UZ-N96 UE-25c #1 USV UZ-N96 UE-25c #1 USV UZ-N96 UE-25c #3 USV UZ-N96 UE-25c #1 UE-29a #1 USV VT-1 UE-29a #2 USV VT-2 USV VT-2 USV VT-2 USV VT-1 USV VT-2 USV VT-2 USV VT-1 US-29a #2	USW UZ-N65 USW UZ-N66 USW UZ-N67	UE-25 UZN #60 UE-25 UZN #7 UE-25 UZN #8	US-25 Seismic #5 US-25 Seismic #6 US-25 Seismic #7 US-25 Seismic #8
USV UZ-N74 USV UZ-N75 USV UZ-N76 USV UZ-N77 USV UZ-N77 USV UZ-N77 USV UZ-N78 USV UZ-N78 USV UZ-N78 USV UZ-N78 USV UZ-N78 USV UZ-N80 * UE-25 VT #16 USV UZ-N80 * UE-25 VT #19 USV UZ-N81 * UE-25 VT #20 USV UZ-N83 UE-25 VT #3 USV UZ-N84 UE-25 VT #3 USV UZ-N84 UE-25 VT #4 USV UZ-N86 UE-25 VT #6 USV UZ-N86 UE-25 VT #6 USV UZ-N87 UE-25 #1 USV UZ-N89 UE-25a #2 USV UZ-N89 UE-25a #3 USV UZ-N90 UE-25a #4 USV UZ-N90 UE-25a #4 USV UZ-N93 UE-25a #6 USV UZ-N94 UE-25a #6 USV UZ-N96 USV UZ-N98 * USV UZ-N98 * UE-25b #1 USV UZ-N98 * UE-25c #1 USV UZ-N98 * UE-25c #1 USV UZ-N98 * UE-25c #1 USV UZ-N98 * UE-25c #1 USV UZ-N98 * UE-25c #3 USV UZ-N96 UE-25c #1 USV UZ-N96 UE-25c #1 USV UZ-N98 * USV UZ-N98 * UE-25c #1 USV UZ-N98 * UE-25c #3 USV UZ-N99 # UE-25p #1 UE-29 UZN #91 US-29 UZN #92 US-29a #1 USV WT-2 US-29a #2 * USV WT-2 US-29a #2 * USV WT-2 US-29a #2	USV UZ-N70 USV UZ-N71 USV UZ-N72	UE-25 UZN #9 UE-25 UZN #97 UE-25 UZNC #1 UE-25 UZNC #2	e de la companya de l
USW UZ-N78 USW UZ-N80 USW UZ-N80 USW UZ-N81 USW UZ-N81 USW UZ-N81 USW UZ-N82 USW UZ-N82 USW UZ-N83 USW UZ-N83 USW UZ-N84 USW UZ-N84 USW UZ-N86 USW UZ-N87 USW UZ-N87 USW UZ-N89 USW UZ-N89 USW UZ-N89 USW UZ-N89 USW UZ-N90 USW UZ-N93 USW UZ-N93 USW UZ-N94 USW UZ-N94 USW UZ-N95 USW UZ-N95 USW UZ-N96 USW UZ-N96 USW UZ-N96 USW UZ-N98 USW UZ-N98 USW UZ-N96 USW UZ-N96 USW UZ-N96 USW UZ-N98 USW UZ-N96 USW UZ-N98 * USW UZ-N96 USW UZ-N96 USSD UZ-N98 * USW UZ-N99 USW WT-1 USW WT-1 USW WT-2 USW WT-21 USW WT-22 USW WT-18	USW UZ-N74 USW UZ-N75 USW UZ-N76	UE-25 WT #13 UE-25 WT #14 UE-25 WT #15	
USW UZ-N83 USW UZ-N84 USW UZ-N86 USW UZ-N87 USW UZ-N87 USW UZ-N88 USW UZ-N88 USW UZ-N89 USW UZ-N90 USW UZ-N90 USW UZ-N93 USW UZ-N94 USW UZ-N95 USW UZ-N95 USW UZ-N96 USW UZ-N96 USW UZ-N98 ** USW UZ-N99 USW WT-1 USW WT-1 USW WT-1 USW WT-1 USW WT-21 USW WT-21 USW WT-22 USW WT-7 ** USW WT-8	USW UZ-N78 USW UZ-N79 USW UZ-N80 USW UZ-N81	UE-25 WT #17 UE-25 WT #18 * UE-25 WT #19 * UE-25 WT #20	
USW UZ-N88	USW UZ-N83 USW UZ-N84 USW UZ-N86 USW UZ-N87	UE-25 WT #4 UE-25 WT #5 UE-25 WT #6 UE-25a #1	• :
USW UZ-N95 USW UZ-N96 USW UZ-N98 * USW UZ-N98 * USW UZ4N-2 * USW UZ4N-2 * USW UZ4N-4 * USW UZ4N-5 USW VH-1 USW VH-1 USW VH-2 * USW VH-3 USW VT-1 USW VT-11 USW VT-11 USW VT-11 USW VT-2 USW VT-2 USW VT-2 USW VT-21 * USW VT-21 USW VT-21 USW VT-2 USW VT-3 USW VT-2 USW VT-2 USW VT-2 USW VT-2 USW VT-3 USW VT-8	USW UZ-N89 USW UZ-N90 USW UZ-N93	UE-25a #3 UE-25a #4 UE-25a #5	
* USV UZ4N-5	USW UZ-N95 USW UZ-N96 USW UZ-N98 * USW UZ4N-2	UE-25a #7 UE-25b #1 * UE-25b #2 UE-25c #1	
USW WT-1	* USW UZ4N-5 USW VH-1 USW VH-2	UE-25c #2 UE-25c #3 UE-25h #1 UE-25p #1	
* USW WT-22 USW WT-7 * USW WT-8	USW WT-1 USW WT-10 USW WT-11 USW WT-2	* UE-25pa #1B UE-29 UZN #91 UE-29 UZN #92	
ON #1>	* USW WT-22 USW WT-7	UE-29a #2	·· .

^{*} Layout Drill-hole

BOTTOM-HOLE COORDINATES AVAILABLE FOR THE FOLLOWING HOLES

USW Holes	UE Holes	Seismic Holes	Other Holes
USV G-1	UE-25 RP #1	Andrew Control of the Control	4.7% see 5
USV G-2	UE-25 RF #10		المستعمرين
USV G-3	UE-25 RF #11		
USW G-4 USW GA-1	UE-25 RF #2		
USW GU-3	UE-25 RF #3		
USW H-1	UE-25 RF #3B		
USV H-3	UE-25 RF #4 UE-25 RF #5		
USV H-4	UE-25 RF #7		*• •
USV E-5	UE-25 RF #7A	· · · · · · · · · · · · · · · · · · ·	ering of the second
USW H-6	UE-25 RF #8	••	
USV UZ-N24	UE-25 RF #9		* ***
USV UZ-N25	UE-25 UZN #1	•	•
USV UZ-N26	UE-25 UZN #10		
USW UZ-N40	UE-25 UZN #12		
USV UZ-N41	UE-25 UZN #13		
USV UZ-N42	UE-25 UZN #14		•
USV UZ-N43	ue-25 uzn #18		
USV UZ-N44	UE-25 UZN #19		
USV UZ-N45	UB-25 UZN #2		
USV UZ-N46	UE-25 UZN #20		
USW UZ-N47 USW UZ-N48	UE-25 UZN #21		
USW UZ-N49	UE-25 UZN #22		*:
USW UZ-N50	UE-25 UZN #23		
USV UZ-N51	UE-25 UZN #28 UE-25 UZN #29	•	
USV UZ-N52	UE-25 UZN #29		•
USV UZ-N65	UE-25 UZN #30		
USV UZ-N66	UE-25 UZN #4	• .	
USW UZ-N67	UE-25 UZN #5		•
USW UZ-N68	UE-25 UZN #56		
USW UZ-N69	UE-25 UZN #6		
USW UZ-N70	UE-25 UZN #60		
USW UZ-N71	UE-25 UZN #7		
USW UZ-N72	UE-25 UZN #8		•
USW UZ-N73	UE-25 UZN #85		
USV UZ-N74	UE-25 UZN #9		
USY UZ-N75	UE-25 UZN #97		•
USV UZ-N76	UB-25 UZNC #1	-	
USV UZ-N77	UB-25 UZNC #2		
USV UZ-N78	UE-25 VT #12		
USW UZ-N79 -	UE-25 WT #13	4	
USV UZ-N80	UE-25 VT #14		•
USV UZ-N81	UE-25 VT #15		
USW UZ-N82 USW UZ-N83	UE-25 WT \$16		
USV UZ-N83	UE-25 VT #17		
USW UZ-N84 USW UZ-N86	UE-25 WT #18		
USV UZ-N87	UE-25 WT #3 UE-25 WT #4		
	OP-53 AT 44		

BOTTOM-HOLE COORDINATES AVAILABLE FOR THE FOLLOWING HOLES

USW Holes	UE Holes	Seismic Holes	Other Holes
USV UZ-N88	UE-25 WT #5	٠.	
USW - UZ_N89	UE-25 WT #6	•	4
USW UZ-N90	UE-25a #1		t -
USW UZ-N93	UE-25a #3		•
USW UZ-N94	UE-25a #4		
USW UZ-N95	UE-25a #5		• *
USW UZ-N96	UE-25a #6	•	•
USW UZ-N98	UE-25a #7		
USV VH-1	UE-25b #1		
USW VH-2	UE-25c #1		
USW WT-1	UE-25c #2	•	
USW WT-10	UE-25c #3	•	••
USW WT-11	UE-25h #1	-	
USW WT-2	UE-25p #1		
USV VT-7	UE-29 UZN #91		
•	UE-29 UZN #92		
	UE-29a #1		
	UE-29a #2		

LIST OF DRILL HOLES FOR WHICH CORE INFORMATION IS AVAILABLE IN THE SEPDB

(CORE INTERVALS, PERCENT AND RECOVERY DATA)

USW Holes	UE Holes	Seismic Holes	
		58 325 - 57	PORTER MIN
USV G-1	UE-25 RF #1		
USV G-2	UE-25 RF #10		ALL STATES
USW G-3	UE-25 RF #11		
	UE-25 RF #2		
USV G-4 USV GA-1	11P_25 PP #3		the second second
USW GU-3	UE-25 RF #3B		
HCU W1	112_25 RP #4		
USV H-3 USV H-4 USV H-5	UE-25 RF #5		Arra Car
USV H-4	UE-25 RF #7	•	
USV H-5	UE-25 RF #7A	•	. •
024 u-0	UB-23 RF #0		. •
USV UZ-1	UE-25 RF #9		•
USW UZ-13			
USW UZ-6	UE-25 UZ #5		
USW UZ-6s	UE-25 UZN #1		
USW UZ-7	UE-25 UZN #10		
USV UZ-8			
USW UZ-N24	UE-25 UZN #21		
USV UZ-N25	UE-25 UZN #22 UE-25 UZN #23		
USW UZ-N26 USW UZ-N40	UE-25 UZN #28		
USW UZ-N41	UE-25 UZN #29		
USW UZ-N42	UE-25 UZN #30		
USW UZ-N43	UE-25 UZN #85		
USW UZ-N44	UE-25 UZN #97		
USW UZ-N45	UE-25a #4		
USW UZ-N46	UE-25a #5		
USV UZ-N47	UE-25a #6		
USV UZ-N48	UE-25a #7		
USW UZ-N49	UE-25b #1		
USW UZ-N70	UE-25c #1		
USW UZ-N74	UE-25c #2		
	UE-25c #3		
USV UZ-N75 USV UZ-N90	UB-25h #1		
usw uz-n98	UE-25p #1 UE-29 UZN #91		
USW VH-1	UE-29 UZN #91		
USW VH-2	OR-58 OW #85		•
	UE-29a #1		
	UB-29a #2		

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DATA AUTHORIZATION FORM YMP SITE & ENGINEERING PROPERTIES DATA BASE (SEPDB)

Send to: Margie Krebs-Jespersen SEPDB Data Base Administrator Geoscience Analysis Division, 6315 Sandia National Laboratories P. O. Box 5800
Albuquerque, New Mexico 87185
Telephone: (505 or FTS) 846-1775 QA Level _____ of data-gathering activity. Nation I the en Brief description of type of data submitted. a je sjesani Format of document containing submitted data (e.g., magnetic tape, floppy disk, etc.) Please attach any remarks regarding special storage format or data organization that might be required. NOTE: A hardcopy of the submitted data is required. 11. The second of Number of attached pages containing data: Identification number(s) or Local Record Center (LRC) code(s) on each submitted Is submitted data published? YES NO Published Reference: If submittal includes a modification (additions, corrections, etc.) to a previous submittal indicate the previous Data Authorization number(s). Also indicate which data are to be removed or superceded, the data and information as it should be in the data base, and the reason for such removal (include attachments if necessary). The name and address of the person making the submittal and the submittal date. The attached data were collected for the Yucca Mountain Project (YMP), and they are hereby authorized for inclusion in the YMP SEPDB. All appropriate reviews and Quality Assurance requirements have been met. TPO Signature: DATA AUTHORIZATION FORM NUMBER: Signature of SEPDB Manager

.WORK REQUEST

YMP SITE & ENGINEERING PROPERTIES DATA BASE (SEPDB)

Send to: Margie Krebs-Jespersen SEPDB Data Base Administrator	Request Number:
Sandia National Laboratories Geoscience Analysis Division, 6315	Date Received: Product QA Level:
P. O. Box 5800	Data QA Level:
Albuquerque, NM 87185	area contratore a contratore a
Telephone: (505 or FTS) 846-1775	

TO BE COMPLETED BY REQUESTOR:	
Name:	Signature:
	Date:
Address:	Telephone:
Work Requested - Attach additional exsketches, and example listing, if app	planations, Requested ropriate: Data QA Level:
	
	
TO BE COMPLETED BY DATA BASE PERSONNE	
Type: Data Entry Product 1	Request Other
Accepted By:	Date:
Assigned To:	Date:
Verified By:	Bahah
Product Numbers, or Accession Numbers	• · · · · · · · · · · · · · · · · · · ·
Tile _ 6310 / /1213 /1 //	PERFECTE AND ADDRESS OF ATTACHMENTS:

DATA INFORMATION FORM FOR SUGGESTED ENTRIES INTO THE YMP SITE & ENGINEERING PROPERTIES DATA BASE (SEPDB)

If you are aware of any data generated by Yucca Mountain Project activities that could benefit you, your colleagues, or other YMP participants; please indicate how we might contact someone in order to include that data in the Project data base.

W +12 7	Send to: 122 of the season	
	Margie Krebs-Jespersen, SEPDB Data Base Administrator	
	Geoscience Analysis Division, 6315	5. ·
	Sandia National Laboratories P. O. Box 5800	
	Albuquerque, New Mexico 87185	Telephone: (505 or FTS) 846-1775
	Technical Contact:	
	Address:	
	Phone Number:	
,	The second secon	
	Participant:	
	If suggested data is contained in a reference number, and the year publications	a report, please give the title, document lished if known.
	Title:	
	and the second s	
ಲ್ಲ ಚ್ ≟ಾಡು	Reference Number:	Date:
	Reason why this data should be ento	ered:
· ·	*******************	
	Your name:	
		•
	Address:	
	Phone:	

Appendix B

DATA FORMALLY SUBMITTED TO THE TECHNICAL DATA BASE DURING THE SECOND QUARTER

Participant	Description of Data	DA Number
SNL	Hydraulic Conductivity, Bulk Density, Water Retention, and Curve Fit Parameters, SAND87-2380	DA0047
USGS	Water Levels, USGS OFR 88-468	DA0048
USGS	Water Chemistry, USGS OFR 83-854	DA0049

REPORT EXAMPLE #1

THERMAL MECHANICAL UNIT CONTACTS IN USV H-5 BY ELEVATION

SEP0060 Data QA Level: NQ

20-JUN-1989 16:21:54

>range of t is thermstrat

>range of h is holeinfo
>retrieve (t.int_top, t.int_bot, t.int_unit, t.tmunit,
> topelev=h.collar_e-t.int_top) where
>t.hole_id=h.hole_id_and_t.hole_id="USW H-5"

nt_top	int_bot	int_u	ın tmuni t	topelev
0.000	410.000	ft	TCv	4850.800
410.000	570.000	Íft	PTn	4440.800
570.000	1582.000	Íft	TSv2	4280.800
1582.000	1655.000	İft	TSv3	j 3268.800
1655.000	1880.000	İft	İCHn1v	3195.800
1880.000	•	•	CHn2v	2970.800
1896.000			CHn2z	2954.800
1945.000	•	•	CHn3z	2905.800
2015.000			PPv	2835.800
2125.000	•		CFUn	2725.800
2345.000	•	•	BFv	2505.800
2710.000			CFMn1	2140.800
2713.000	•	ft	CFMn2	2137.800
2742.000	•	•	CFMn3	2108.800
2847.000			TRV	2003.800

End of Request - 15 Rovs

20-JUN-1989 16:24:42

>retrieve (references.all, t.qa level) where

> t.reffk=references.refpk

Data QA Level = NO

Title:

A Three-Dimensional Model of Thermal/Mechanical and Hydrologic Stratigraphy at Yucca Mountain, Southern Nevada

ref_date	citation	partic	
01-jan-1985	SAND84-1076	SNL	

REPORT EXAMPLE #2

REQUESTOR REQUIRED A SPECIFIC OUTPUT FORMAT

SEP0049 Data QA Level: TED

			_	Land				el (correct	
M ale or		tion(Mole	surface	Depth			Depth to	
well	Borth	East	depth	altitude	correction	Date	Interval	water	Altitude
number	(ft)	(£t)	(m)	(a)	(m)	measured	(=)	(a)	(a)
UE-25 WT \$12	739725.9	567011.0	398.548	1074.555	0.20	10/31/83	composite	345.400	729.155
113 M CS-20	756715.0	578756.7	353.452	1031.714	0.01	10/31/83	composits	303.300	728.414
02-25 Wt 414	761650.6	575210.1	399.157	1075.561	0.09	11/07/13	composite	346.200	729.361
CE-25 WZ #15	766116.6	579405.7	414.392	1082.447	0.13	12/01/13	composits	354.200	728.247
UE-25 WT \$16	774419.7	570394.9	521.037	1210.086	0.06	12/01/43	composite	472.700	737.386
DE-25 WE \$17	748419.6	566211.9	442.729	1123.886	0.48	11/07/03	composite	394.600	729.216
DE-52 AL 13	745995.1	573384.4	347.967	1029.734	6.27	10/31/43	compesite	300.500	729.234
TE-25 NT 14	768511.8	561040.2	481.626	1161.403	0.46	11/01/13	composite	435.500	729.501
UE-25 W7 66	780573.8	564323.9	382.856	1313.958	4.24	10/11/13	composite	283.900	1930.034
UE-256 #1	765243.4	566416.4	1219.409	1200.213	6.06	06/81/82	546.00 - 503.00	471.026	729.193
DE-256 11	765243.4	566416.4	1219.409	1200.213	0.00	06/19/82	585.80 - 622.86	471.030	729.183
UE-25b #1	765243.4	566416.4	1219.409	1200.213	8.00	06/19/02	843.00884.00	471.430	728.783
OE-256 #1	765243.4	566416.4	1219.409	1200.213	0.00	06/19/12	789.00 - 626.00	471.500	728.713
UE-256 #1	745243.4	566416.4	1219.409	1200.213	0.25	88/01/03	471.00 - 1159.00	479.300	729.913
TE-256 #1	765243.4	566416.4	1219 - 409	1200.213	0.25	CALANO.	1139.00 - 1220.00	472.200	728.013
DE-250 #1	763243.4	566416.4	1219.409	1200.213	0.25	12/13/13	composite	470.600	729.613
UE-25c #1	757095.9	569680.4	914.100	1130.041	0.06	11/07/13	compesite	406.300	729.741
UE-25p #1	736171.2	571484.5	1804.738	1111.557	0.00	01/03/13	99.00 - 913.00	383.000	730.557
UE-250 \$1	756171.2	571484.5	1804.738	1113.557	8.00	01/17/13	99.00 - 1301.00	382.000	731.557
UE-250 #1	756171.2	571484.5	1804.738	1113.557	1.00	61/26/83	29.00 - 1193.00	382.000	731.557
UE-25p #1	754171.2	571484.5	1804.738	1113.557	0.02	02/11/13	1180.00 - 1301.00	355.000	758.557
UE-250 #1	756171.2	571484.5	1804.738	1113.557	0.02	02/01/03	1117.00 - 1301.00	360.500	753.037
UE-250 \$1	756171.2	571484.5	1804.738	1111.537	0.82	02/01/03	1110.00 - 1180.00	361.700	751.857
UK-250 41	756171.2	571484.5	1804.738	1111.557	0.62	02/11/13	1944.00 - 1114.00	379.400	734.157
UE-25p \$1	736171.2	571484.5	1804.738	1113.557	0.52	02/01/13	974.00 - 1644.00	380.200	732.657
UE-25p #1	756171.2	571484.5	1804.738	1113.557	0.02	02/01/03	834.00 - 904.00	381.100	732.457
UE-250 41	756171.2	571484.5	1804.738	1113.557	0.02	02/01/03	904.00 - 974.00	382.200	731.357
W-250 11	756171.2	571484.5	1804.738	1113.557	0.02	02/01/03	764.00 - 834.00	383.100	730.457
UE-250 11	756171.2	571484.5	1804.738	1111.557	4.62	02/01/03	739.00 - 789.00	383.300	730.257
US-250 41	756171.2	571484.5	1204.738	1113.557	0.02	02/01/03	500.00 - 550.00	383.500	730.057
UE-250 41	756171.2	571484.5	2304.738	1113.537	0.02	02/01/03	383.90 - 500.00	383.900	729.657
UK-25p #1	756171.2	\$71484.5	1804.738	1113.557	0.00	02/06/13	99.00 - 1193.00	383.000	730.557
UK-250 #1	754171.2	571484.5	1804.738	1113.557	6.00	02/07/03	99.00 - 1193.00	382.000	731.557
UE-25p 11	756171.2	571484.5	1804,738	1113.557	0.00	02/11/13	99.00 - 1193.00	380.800	732.737
UE-250 91	756171.2	571484.5	1864.738	1113.557	0.02	03/01/03	1643.00 - 1609.00	360.000	753.557
DE-250 \$1	756171.2	571484.5	1864.738	1113.557	0.02	05/01/03	1297.00 - 1304.00	362.000	751.557
UE-250 \$1	756171.2	571484.5	1964,738	1113.557	0.02	05/01/83	1297.00 - 1338.00	362.300	751.257
UE-25p #1	73.71.2	571484.5	1804.738	1113.557	0.02	05/01/43	1341.00 - 1381.00	362.300	751.257
UE-25p #1	79571.2	571484.5	1894.738	1113.557	0.02	05/01/43	1381.00 - 1429.00	362.400	751.157
UE-250 11	794171.2	571484.5	1804.738	1111.557	0.02	05/01/83	1463.00 - 1509.00	362.400	751.157
UE-25p \$1	736171.2	571484.5	1884.738	1111.557	0.02	05/01/03	1423.00 - 1463.00	362.500	751.057
W-250 \$1	796171.2	571684.5	1804.738	1113.537	6.02	05/01/03	1509.00 - 1505.00	362.500	751.057
16-25p \$1	756171.2	571484.5	1804,738	1113.557	0.02	05/01/13	1597.00 - 1643.00	362.700	750.857
VE-25p (1	756171.2	571484.5	1804.738	1113.557	0.02	05/01/43	1780.00 - 1805.00	363.000	750.557
US-250 01	756171.2	571484.5	1804.738	1113.557	0.02	05/01/13	1734.00 - 1780.00	363.100	750.437
UE-250 (1	756171.2	571484.5	1804.738	1113.557	4.00	05/07/03	1297.00 - 1805.00	361.500	752.057
UE-25p #1	756171.2	571484.5	1804,738	1113.557	9.00	85/13/13	1297.00 - 1905.00	361.000	752.557
WE-25p #1	756171.2	571484.5	1804,738	1113.557	0.02	11/07/03	composite	364.700	748.837
USM G-1	770500.2	561000.5	1828,200	1325.018	0.67	03/23/02	composite	571.700	753.318
DSW 4-2	778824.2	560503.9	1830.028	1553.482	0.16	09/17/12	composite	524.900	1028.542
USW 4-3	752779.8	558483.1	1532.946	1479.776	6.57	11/30/03	composite	750.300	729.476
DSW G-4	765407.1	563081.6	915.814	1269.654	6.00	11/22/12	12.00 - 915.00	538.000	731.654

REPORT EXAMPLE #3

OUTPUT FROM THE SITE & ENGINEERING PROPERTIES DATABASE FOR USE IN GEOSTATISTICAL PROGRAM

SEP0053 Data QA Level: TBD

1 2 17 € 3				Collar Elevation		Number of rows in
Drill Hole		East/North	Coordinates		nuth Dip	data set
UB-25b #1		566416.40	765243.40	3939.00 0.0	0 -90.0	13
566416.40	765243.40			11.700	2.250	0.0000012150
566416.40	765243.40	2365.94	1573.063	26.650	1.750	0.0001035000
566416.40	765243.40	1885.12	2053.876	24.500	1.730	0.0000420000
566416.40	765243.40	1708.88	2230.119	11.850	2.090	0.0000012650
566416.40	765243.40	1468.64	2470.361	23.150	2.010	0.0005800000
566416.40	765243.40	1349.83	2589.170	21.450	2.060	0.0000695000
566416.40	765243.40	1267.12	2671.876	22.200	2.040	0.0000500000
566416.40	765243.40	1170.63	2768.367	22.900	2.020	0.0000050000
.566416.40	765243.40	906.76	3032.240	19.400	2.110	0.0000305000
566416.40	765243.40	825.04	3113.962	18.550	2.140	0.0000190000
566416.40	765243.40	192.93	3746.075	14.800	2.240	0.0003100000
566416.40	765243.40	95.78	3843.222	12.400	2.320	0.0002250000
566416.40	765243.40	-5.31	3944.308	10.850	2.420	0.0000785000
\	/	1	1	1	i	· 1
\	/	İ	İ	İ	İ	į
East/North	Coordinate	es Sample	Sample	Average	Average	Average
		Elevati	on Depth	Porosity	Dry Bulk Density	Hydraulic Conductivity

^{*} The elements have been labeled for this example -- they were not included in the actual product.

Further reading

Earthquakes, A Primer, Bruce A. Bolt, 1984, W. H. Freeman and Company.

Terra Non Firma, Understanding and Preparing for Earthquakes, James M. Gere and Haresh C. Shaw, 1984, W. H. Freeman and Company.

Peace of Mind in Earthquake Country, Peter Yenev, 1979, Chronicle Books.

Manual of Seismic Design, James L. Stratta, 1987, Prentice-Hall, Inc.

EARTHQUAKES IN NEVADA

and how to survive them

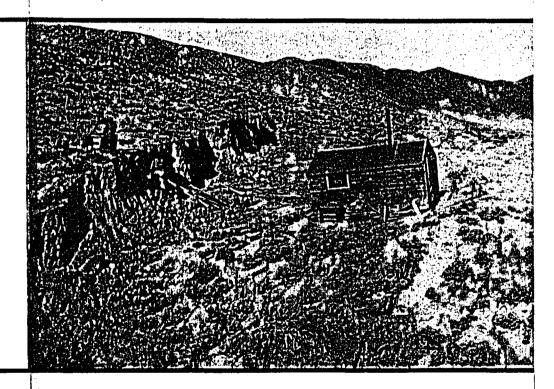
For further information on faults, earthquakes, and emergency management in Nevada

CONTACT:

Nevada Bureau of Mines and Geology University of Nevada-Reno Reno, Nevada 89557-0088 (702) 784-6691

Seismological Laboratory University of Nevada-Reno Reno, Nevada 89557-0047 (702) 784-4975

Nevada Division of Emergency Management Capitol Complex Carson City, Nevada 89710 (702) 885-4240



The recommendations and suggestions included in this document are intended to improve earthquake preparedness; however, they do not guarantee the safety of an individual, structure or facility. The State of Nevada does not assume liability for any injury, death, or property damage that occurs in connection with an earthquake.

This pamphlet prepared by Craig dePolo, Alan Ramelli, and Diane dePolo

Cover Photograph
Large fault scarp created during the 1954 Dixie Valley earthquake (photo by Karl V. Steinbrugge).

Nevada Bureau of Mines and Geology

UNR Seismological Laboratory

Nevada Division of Emergency Management

Nevada's Earthquake Hazard

The State of Nevada is located in "earthquake country". It lies within the Basin and Range province, one of the most seismically active regions in the United States. Along with California and Alaska, Nevada ranks in the top three states subject to the most large earthquakes over the last 150 years. Figure 1 shows the seismicity recorded in Nevada from 1852-1988. Magnitude 3 and 4 earthquakes are commonly felt, but rarely cause damage. Minor to moderate damage can accompany a magnitude 5 or 6 event, and major damage commonly occurs from earthquakes of magnitude 7 and greater. Although earthquakes don't occur at regular intervals, the average frequency of earthquakes of magnitude 6 and greater in Nevada has been about one every ten years, while earthquakes of magnitude 7 and greater average once every 27 years.

Geologically young faults, which are the sources of earthquakes, can be found throughout the state (fig. 2). Although the largest historical earthquakes occurred some distance from population centers, no part of the state is far from a potential source of large earthquakes. Large earthquakes occurring along the borders of Nevada, such as the 1872 Owens Valley earthquake in California (magnitude 7¾-8), can also cause strong shaking and damage in Nevada.

Large earthquakes have occurred in Nevada in the recent past and more will occur in the near future. This pamphlet suggests simple, inexpensive steps that can be taken before, during, and after an earthquake to minimize personal injury and property damage.

Selected Earthquakes in Nevada¹

Date	Magnitude	Location	Nearest Community ²
1845? or 1852?	7.3?	Pyramid Lake?	Wadsworth?
Mar. 15, 1860	6.8?	Carson City	Carson City
Dec. 27, 1869	6.7	Olinghouse	Wadsworth
Dec. 27, 1869	6.1	Carson City	Carson City
Jun. 3, 1887	6.3?	Carson City	Carson City
Apr. 24, 1914	6.4	Reno area	Reno
Oct. 3, 1915	7.6	Pleasant Valley	Winnemucca
Dec. 21, 1932	7.2	Cedar Mountain	Gabbs
Jan. 30, 1934	6.3	Excelsior Mtns.	Mina
Dec. 29, 1948	6.0	Verdi area	Verdi
May 24, 1952	5.0	Lake Mead area	Boulder City
Jul. 7, 1954	6.6	Rainbow Mtn.	Fallon
Aug. 8, 1954	7.0	Rainbow Mtn.	Fallon
Dec. 16, 1954	7.2	Fairview Peak	Fallon
Dec. 16, 1954	6.8	Dixie Valley	Fallon
Sep. 22, 1966	6.1	Clover Mountain	Caliente

¹This is a partial list of significant, historical earthquakes in Nevada.

²Not necessarily the only communities affected by the earthquake.

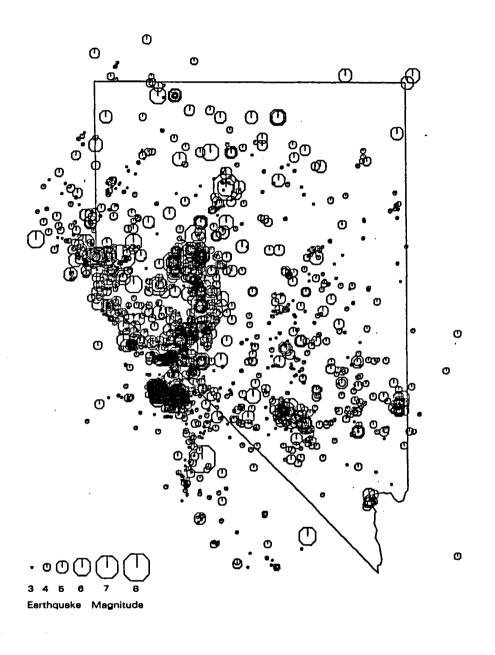


FIGURE 1. Earthquakes in the Nevada region recorded from 1852-1988.

University of Nevada-Reno Seismological Laboratory

Earthquake deaths and injuries are seldom caused directly by movement of the ground. Most frequently, injuries are caused by collapse of buildings; flying glass; overturned bookcases, furniture, and appliances; and fires from broken chimneys, broken gas lines, and downed electrical lines. Preparing for earthquakes only takes a little time, foresight, and common sense to imagine what would happen if the ground starts to shake, and how to mitigate or prepare for the consequences of shaking.

By planning and practicing what to do before an earthquake occurs, you and your family can learn to react correctly and automatically when the first jolt or shaking begins. This can turn the tendency to panic into lifesaving action.

Following a large earthquake, it may be 72 hours or longer before outside emergency assistance can reach everyone, so any efforts towards mitigating seismic hazards and being prepared to be self sufficient immediately afterward are prudent.

What to do before an earthquake

Have a battery powered radio, flashlight, water, and first aid kit in your home. Make sure everyone knows where they are stored. Keep fresh batteries on hand.

Know the location of gas and water shutoff valves and the electric fuse or circuit breaker box. Make sure responsible members of your family learn how to turn them off. Keep crescent and pipe wrenches handy for an emergency.

Remove heavy objects from high shelves and store them on the floor or bottom shelves. Don't hang heavy picture frames or mirrors over beds. Locate beds away from windows. Do not put hanging plants or light fixtures where they can swing and hit a window or come off their hooks.

Put one or more straps around water heaters and gas furnaces and attach them securely to walls to keep natural gas hookups from breaking. Flexible gas connectors can also be used. Bolt the supports to the floor. Block rollers on refrigerators, washers, and other heavy appliances.

Anchor securely to walls cupboards and high bookcases that might topple. Keep cupboards and cabinets latched.

Store containers of dangerous materials, such as flammable liquids and poisons, in a secure place where they cannot fall and break open.

With your family, identify dangerous areas and places to take cover for each room inside your house. Point out hazardous areas outside as well, such as near the chimney or power lines.

Keep a few days of nonperishable food on hand in your home (canned goods are ideal) and enough water for each person for a week. If you take medicine regularly, have an extra supply on hand.

Devise a plan for reuniting your family after an earthquake in the event that anyone is separated. Family members should know the locations of the nearest medical, fire, and police facilities.

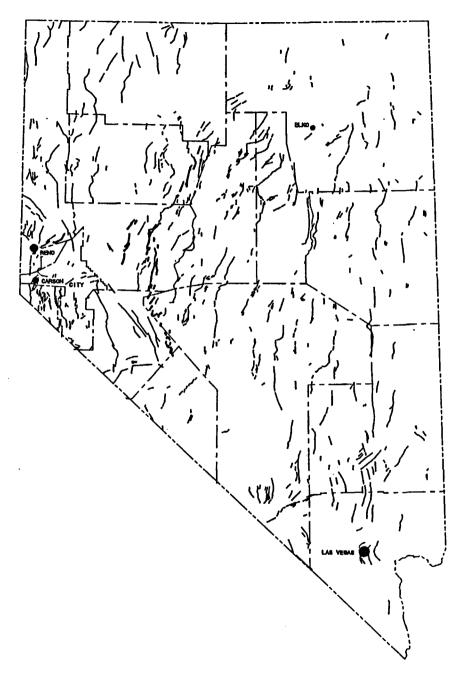


FIGURE 2. Active faults in Nevada; bold lines are historical earthquake surface breaks.

When building or remodeling a house, be sure to provide adequate bracing against horizontal forces. Make sure that the foundations are adequate and that the house is securely tied to the foundation. Add bracing to support chimneys and air conditioners, especially on rooftops. (For further information see references on last page.)

Mobile homes can fall off their supports during an earthquake. To avoid this, leave the tires on or brace the supports.

Do not locate buildings within 50 feet of active faults where surface fractures secondary to the fault may occur.

Employers should check out offices and factories to make sure employees are out of danger from falling objects. Keep exit ways clear so that they will not become cluttered with debris and will be usable after an earthquake.

Teachers should check classrooms for potential hazards, such as heavy displays or aquariums, and make sure they are away from areas where students will be taking cover.

What to do during an earthquake

Your actions are critically important. Act immediately when you feel the ground or building shake, keeping in mind that the greatest danger is falling debris. Don't worry about being embarrassed if you take cover under a desk or table.

Stay calm.

As a general rule, don't run in or out of buildings. If indoors, stay indoors; if outdoors, stay outdoors. Many injuries occur as people enter or leave buildings. If indoors, wait for shaking to stop, then cautiously move outside.

If you are indoors, stand against a wall near the center of the building, in a doorway, or get under a desk or other sturdy furniture. Stay away from windows which can shatter, outside doors, and objects hanging from ceilings, such as light fixtures.

If you are outdoors, stay in the open, keep away from buildings, electric wires, and trees.

If you are in a tall building, do not attempt to evacuate, seek safety where you are. Don't be surprised if the electricity goes out, and elevator, fire, and burglar alarms go off. Expect to hear noise from breaking glass and falling objects. Do not use elevators.

If you are in an unreinforced masonary building or other hazardous structure, you may feel it is better to take a chance on leaving the building than staying inside. Leave quickly but cautiously, being alert for falling bricks, electric wiring, and other hazards.

If you are in school, get under a desk, facing away from windows. If you are on the playground, stay away from buildings.

If you are in a moving car, safely stop the car and remain inside. Avoid stopping near or under buildings, overpasses, and utility wires.

If you are in a crowded place, stay calm and urge others to do the same; take cover under sturdy furniture; in an auditorium, crouch on the floor between chairs and cover head.

If in a steep canyon or near a steep slope, watch out for rock falls and land-slides.

What to do after an earthquake

Check yourself and people nearby for injuries. Provide first aid if needed.

Check for fires and fire hazards. Check burning wood stoves and stove pipes. Put out fires immediately if you can. Approach chimneys with caution and inspect for damage. Do not use fireplaces unless the chimney is undamaged and without cracks.

Check gas, electric, and water lines. If damaged, shut off valves. Turn off appliances. Do not light matches or candles. Check for gas leaks by odor only. If a gas leak is detected, open all windows and doors, leave immediately, and report to authorities.

Do not touch power lines, electric wiring, or objects in contact with them.

Turn on the radio for emergency instructions. Do not use the telephone unless there is a severe injury.

Wear sturdy shoes to protect against shattered glass and debris.

Do not flush toilets until sewer lines are checked.

Open closet doors and cupboards cautiously, because objects may fall outward on you.

Stay out of damaged buildings. Collapses can occur without much warning and there are dangers of gas leaks, electric wiring, and broken glass.

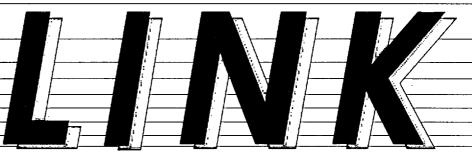
Be reassuring and helpful to children and others who may suffer psychological trauma from the earthquake. Do not spread rumors.

Identify emergency water supplies, such as the water heater.

If driving immediately after an earthquake, watch for hazards created by the earthquake like fallen objects, downed electric wires, or blocked roadways.

EXPECT AFTERSHOCKS. They may cause additional damage.

SOUTHERN NEVADA



November 1989

a community resource publication

Las Vegas 2000 Projects City's Future by Laura Dorman

n January, Mayor Ron Lurie and County Commissioner Bruce Woodbury initiated Las Vegas 2000 and Beyond, a project to devise strategies to lead Las Vegas into the next century.

More than 300 people, meeting in eight committees, contributed to the project. A brief look at some of their work offers a small glimpse of the city's future.

Education and research will be key to producing an environment free from criminal activity. Citizens must be educated to be non-victims through selfprotection and involvement in Neighborhood Watch. The business community can play a role in reducing crime by funding educational experiences for youth, and alternative education must be

Please see 'LV 2000,' page 10

Prominent Vegan To Smooch Sow by Charlotte Alaimo

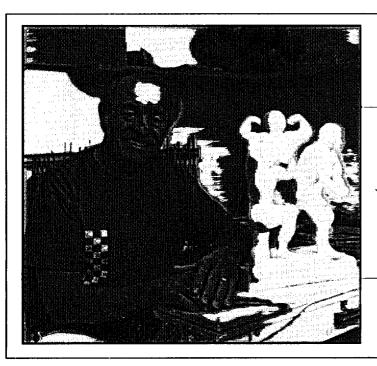
ow would you like to witness Las Vegas' Mayor Ron Lurie, Clark County Commissioner Thalia Dondero or Channel 3's weatherman Rich Britton kiss a pig?

You will be able to see one of the three kiss a pig at the Green Valley Athletic Club as part of a fundraising event for the American Diabetes Association (ADA) when it kicks off National

Diabetes Month on Nov. 4 with the ADA Runners Fair.

This event is more than a fundraising event, it provides information and direct services to people with diabetes and to the public. Diabetics will have the opportunity to have their blood sugar levels tested before and after the running/walking events.

The day will start with a Please see 'Diabetes Month,'page 10



Local sculptor, Richard Blanchard, makes a mark for Nevada in the sculpting community by capturing a first prize medal in a national competition. For an inside look at his winning work, please see page 9.

What's inside

Complete November Community Calendar	
Youth Congressional Awards	5
■ Network Updates	12
■ Las Vegas Batting Zero?	14
■ Best Dam Get-Togethe	er 15

■ Minority Affairs Council

The Southern Nevada Link November 1989 Volume 1, Issue 2

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The Southern Nevada Link 3370 Pinks Place, Suite #F Las Vegas, NV 89102 (702)368-1588

Editor's message

hree things this month. First, you'll probably notice as you thumb through this third issue of the Southern Nevada Link that the calendar is becoming larger and more comprehensive. As we make our way into the winter months, it appears that our community becomes more active. (Unlike a few "bears" I know.)

Maintaining the most comprehensive calendar in the community is the "Link mission." The goal is to be the most complete resource of and for all organizations (I've heard "guesstimates" that there are as many as 700) in our community.

To succeed in our mission we need your help. If you don't see your organization listed, call us. If you see your listing with erroneous information, call us. A little help from you would go a long way.

Secondly, although we are publishing only one month of calendar per issue, we are maintaining a master calendar for the next year. I expect this process will be complete by yearend.

We would appreciate your letting us know of any events your organization may have scheduled for 1990. By listing your function/ event in the master calendar, hopefully 'conflicts' will be reduced. So, after January 1st, call us for a copy of the master calendar.

And finally, advertisers. As with anything, "tried and true" is usually selected over "trying and new." (This wisdom came to me the hard way ... through the experience of obtaining advertising support for the Link!) Fortunately there are companies in our community who are strongly committed to our community and always eager to demonstrate that commitment. This month we welcome Security Pacific Bank, Centel, Royal Printing, and For Rent Magazine, along with Associated Credit Reporting, the Computer Center, Inc., Montevista Hospital, Response Mail and Nevada Woman. Advertisers are the Link's lifeline.

We applaud the community commitment of these businesses, recognize the trust they've placed in the *Link* and thank them for their invaluable vote of support.

Have a great November.

CALENDAR

QUESTIONS & ANSWERS

How can I have my organization's events listed in the Community Calendar?

Simple ... call the LINK at 368-1588.

Are there limitations?

The only rule is that each event or function be open to anyone from our community who is interested in attending.

7 p

Nov. 1st (Wed)

call North LV Women's Golf Assoc. 457-4159

7 a The Leads Club 365-6283 or 454-6056

7 a Breakfast Club

Tom Dudas 731-5161 7 a Henderson Kiwanis Club Rex Newell 564-3333

10a Temple Beth Shalom Sisterhood 732-0556

12n Las Vegas Exchange Club Bob Griess 734-4424

12n Las Vegas 49er Lions Charlie Brown 384-2471

12n Adult Children of Alcoholics 734-6070

2:30p Kiwanis Club of Golden K Srs.
Preston Reid 645-0141
5:30p Negado Engastino Momen

5:30p Nevada Executive Women 795-1965 5:45p Bachelors & Bachelorettes Toastmasters Mike Wilson 873-2739

P Montevista Hospital
"Gangs: Guns, Dust, Crack and
Crank" Seminar

251-1202 New Life Foundation "Success Without Stress" Joan Phillips 293-4444

7p S.I.R. Metropolitan of LV Jean Mann 876-2271

7p Writers Group of Nevada Workshop 453-2454

7p Evening Optimist Club Joe Schleef 457-0611

7p Nat'l Council of Jewish Women 732-0556

7:30p City of Las Vegas Film Classic-"The Misfits" 386-6383

7:30p Police Protective Assoc.

Donkey Basketball

Boulder City Chmbr 293-2034

7:30p Sundowners Lions Club
Norm Kaufman 451-1763

7:30p Astronomical Soc. of So. NV Lonnie Hammargren 451-8444

8p Las Vegas Jaycees Todd Stewart 457-8832

8p UNLV Theatre "Crooked River" (thru Nov.4) 739-3801

8:05p UNLV Running Rebels Scarlet & Silver Scrimmage 739-3900

12mid Darwin's Magic Club 365-1328

LINK LETTERS

Publisher's Note: I received several letters and comments regarding last month's nuclear waste article. The following was submitted by the Nevada Nuclear Waste Study Committee. Whether you agree or disagree ... I hope you find it as interesting as I did.

Nevadans Deserve The Facts About Yucca Mountain

by Joy Fiore Public Information Chair -American Nuclear Society and Robert C. Dickinson Co-Chairman Nevada Nuclear Waste Study Committee

The Nevada Nuclear Waste Study Committee is a private citizens group of approximately 8,500 concerned Nevadans interested in the facts about Yucca Mountain.

Factual information is why the NNWSC was formed. It is neither a pro-repository group, nor an anti-repository group. It is an objective group that believes any decision on Yucca Mountain must be made on the basis of scientific fact and not emotional rhetoric.

In the last issue of The Southern Nevada Link an article appeared about Yucca Mountain that contained several important, and glaring factual errors. The statements made in the story were attributed to Ms. ludy Treichel.

Ms. Treichel is the director of the Nevada Nuclear Waste Task Force. Ms. Treichel is also listed on the board of directors for Citizens Alert, an avowed

anti-repository organization that vehemently opposes the repository. This is a conflict of interest that clearly diminishes the objectivity of the Task Force.

It is ironic that the story was headlined "Task Force to Provide Nevadans Facts on Nuclear Waste." Given Ms. Treichel's conflicting points-of-view, it is easy to understand why the article's "facts" were misconstrued.

Members of the NNWSC do not understand how Ms. Treichel can portray herself as an objective source of information for the Task Force, and yet advise and direct the activities of another group dedicated to ending all activities at Yucca Mountain.

One of our country's greatest strengths is its open communication process. The free flow of factual information and open debate on public issues are major building blocks of our democracy.

Misinformation, as contained in the previous article, confuses and hinders the understanding of the actual facts. The NNWSC firmly believes that the facts of the proposed repository should speak for themselves.

There were many misleading statements in the article, however, we have confined our comments to the major errors. The following quotes were taken from The Southern Nevada Link article:

"...thus leaving Nevada for the home of the first nuclear waste repository."

Nevada's Yucca Mountain was selected for site evaluation, and could still be disqualified if scientific tests prove that the site is not safe. It is the view of the NNWSC that the next five to seven years of intensive scientific research at Yucca Mountain will either qualify or disqualify the site.

Even after the research period is completed, there would be an additional two to three years of licensing procedures that must be accomplished before the **Nuclear Regulatory** Commission provides the required license for repository operations. "...also undecided if the casks would be embedded

The casks are called waste packages, not casks. Casks are used for transportation of waste. They will not be placed in the repository. Currently, there are no plans

in concrete or lead..."

to embed the nuclear materials in concrete or lead. Different types of stainless steel alloys are being evaluated to contain the spent fuel rods. "Yucca Mountain itself is an old volcano..."

Yucca Mountain is not a volcano. It never was a volcano. It is a massive accumulation of welded volcanic tuff emplaced by ancient volcanoes located nearby.

"The site sits over a major aquifer..."

There is only speculation that there might be an aquifer located in limestone formations at greater than 3500 feet beneath the region in which Yucca Mountain is located. This has not been proven with geologic or geophysical evidence.

If the aquifer did exist it is so deep that it probably would not be economical to recover it. In addition, if it did exist, the quality of the water has not been determined and it could well be unpotable water. Only further study, as is advocated by the NNWSC, will determine the facts about the aquifer.

"By 1995 the nation will have Please see 'Yucca Mountain,' Page 11

Nov. 2nd (Thur)

call	Las Vegas Art Museum	
	Display of Art for Auction	
	(thru Nov.30) 647-4300	-
7 a	LV Breakfaster Lions	
	Mark Trinko 453-4958	
7:30a	LV Success Network	
	Steve Reed 791-3287	
8 a	Silver Advantage Network	
	UMC Chotr Walking Program	
	383-2095	
12n	Uptown Kiwanis Club	
	Sam Head 455-3530	
12n	West Charleston Lions	
	Dick Grilz 362-8295	
12n	Las Vegas Civitan Club	
	565-5905	
5:30n	Tall Singles Club	
J.50p	453-2681	
	133 2001	

5:45p	I'll Drink to That Toastmasters
	Terri Williams 735-7403
óρ	CCCC Planetarium
•	"First Light & Arctic Lights"
	643-6060 ext. 335
⁷ p	Embroiderers Guild of Amer.
•	Silver Meadows Chapter
	Joyce Griffen 459-5365
7:30p	LV Astronomical Society

643-6060 ext. 335 7:30p Phobic Support & Assistance Peggy 364-1111 Cactus & Succulent Soc. 7:30p

Walter Balke 459-4667 B'nai B'rith Men's Meeting 8р 732-0556

Vanda Master Series The Hanover Band 739-3801

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364-1122

Western & Wildlife Art Enhances National Finals Rodeo

ollectors of fine western and wildlife art again will gather in Las Vegas to attend the National Finals Art Auction and Exhibition, now in its fourth year. A rich adjunct to the National Finals Rodeo activities, the auction will be held at the Golden Nugget Hotel the evening of Saturday, December 2. Admission to the auction is by purchase of a full-color catalog of auction art pieces.

Works of art for the auction will be exhibited in the Las Vegas Art Museum from November 2 through November 30. The opportunity to attend this exhibit to view the rare, fine works of art is offered by the museum free of charge, though donations to the museum

are encouraged.

The roster of contemporary artists in the show reads like Who's Who in American Art. Included are Howard

Terpning, Tom Lovell, James Reynolds, William Acheff, Kenneth Riley, Harley Brown, Richard Schmid, Robert Bateman, David Shepherd,



'Uneasy Land,' an oil painting by John Clymer.

Donald Teague and many more.

The National Finals Art Auction has made a positive impact on both the community and the rodeo. Over \$80,000 has been donated by the auction to support PRCA's Exceptional Rodeo, UNLY Foundation, the Las Vegas Art Museum, George Montgomery Foundation for the Arts, and the Wildlife of the American West Museum in Jackson, Wyoming.

Set your schedule to attend the National Finals Art Auction on December 2. and during the month of November, enjoy a leisurely preview of the work at the Las Vegas Art Museum.

For museum information call 647-4300. For auction and art information, phone 647-3675. LINK

O.V. Turkey Trot Has Something For Everyone

unning enthusiasts will R have a chance to sprint for a good cause on Sunday, November 19, when Opportunity Village hosts Turkey Trot 1989. Opportunity Village has hosted the event for the past nine years to raise funds for its Association for Retarded Citizens. This year's Turkey Trot will be held at Bally's Casino Resort and will be sponsored by Centel, the Las Vegas Review-Journal, and TV Channel 13.

Participants can register either for a 10K race for competitive runners or a 2mile noncompetitive Fun Run. For those who are coming simply to cheer on friends and family, the Green Valley Lions Club will hold a pancake breakfast during and just after the race for \$3.00 per person.

Runners can participate either as individuals or as part of a four-member team. Both individual and

team divisions include a category for participants in wheelchairs. Winners in both divisions will receive trophies made by the clients of Opportunity Village.

Registration forms will be



available at sponsors' offices, the Opportunity Village executive office at 917 South First Street, and The Running Store, second level of the Meadows Mall. Mailin deadline for registrations is November 13. The Running Store will be accepting entries after the mail-in deadline and will also be distributing t-shirts, information

sheets and race numbers from noon to 9 p.m Wednesday, Nov. 15, through Friday, Nov. 17, and again on Saturday, Nov. 18, from 10:00 a.m. to 6:00 p.m. **LINK**

Nov. 3rd (Fri)

7:30a Valley Voices & Vices **Toastmasters** Lorri Jackson 435-7678 10a NV State Museum & Historical Society 7th Annual LV Indian Days (thru Nov. 5) 486-5205 12n **Highnoon Lecture Tstmstrs** Donna Milcarek 362-2632 6р Maranatha Academy Entertainment Expo '89 Ronald Kusiak 791-1061 7 p New Life Foundation "Success Without Stress" Joan Philips 293-4444 7:30p CCCC Planetarium "First Light & Arctic Lights" 643-6060 ext. 335 7:30p **B-Sharps of Las Vegas** Dance 458-4167 8p Reed Whipple Cultural Ctr BYU's Young Ambassadors 386-6211

"I Am Not Rappaport"

647-SHOW

8р

Actors Repertory Theatre

Nov. 4th (Sat)

call **Multiple Sclerosis Society** "Best Dam Bike Get Together" 733-0073

Amer. Diabetes Assoc. Runners Fair 369-9995

NV Small Business Dev't Ctr "Selecting a Franchise" 739-0852

New Life Foundation "Success Without Stress" Joan Philips 293-4444

Dula Comm. Center Holiday Craft Sale 386-6454

10a Maranatha Academy Entertainment Expo '89 Ronald Kusiak 791-1061

NV School of the Arts Workshop 739-3502

UNLV Football vs. Long Beach State 738-3900

3:30p CCCC Planetarium "First Light & Arctic Lights" 7:30p 643-6060 ext. 335

Jewish Family Services USO Night Dinner/Dance 732-0556

Henderson Parks & Rec. UNLV's "Crooked River" Teen Excursion 565-2124 or 435-3814

Congressional Award Gives Youth Incentives

ongressman James
Bilbray recently
introduced a program
in Southern Nevada that rewards young people, age
14 to 23, for public service,
personal development and
physical fitness.

"The Congressional Award program was established by Congress in 1979," said Bilbray. "It challenges young Americans to undertake activities that require self-discipline, effort, initiative and leadership. Local and national recognition is encouraged for these young people who contribute to the betterment of their communities through public service."

Young people can qualify for an award by completing a certain number of hours at a specified activity within a given amount of time. To qualify for the Bronze Award, for instance, requires 200 hours within a 9-month period.

"The youth of our community are our future,"
Bilbray said. "We need to nurture and recognize their contributions to Southern Nevada."

Volunteer service with organizations such as hospitals, libraries, Big Brothers or Big Sisters, qualify participants for the award program. Job training programs, apprenticeships and part-time employment by full-time students also meet the requirements of the Congressional Award.

Young people who want to take part in the program, or companies interested in becoming sponsors should contact Bilbray's office at 477-7000.

Master Series Hosts Musical Variety

he popular Charles Vanda Masters Series moves into full swing over the next few weeks with three special performances scheduled between now and the middle of November.

Kicking off the busy period will be an appearance of the New Mexico Symphony Orchestra on Oct. 26. That will be followed by the Hanover Band on Thursday, Nov. 2, and the Vienna Boys Choir on Nov. 16.

All three musical treats will be held at the Artemus W. Ham Concert Hall on the UNLV campus.

Also scheduled as part of this season's series when it resumes after the first of the year are: Balletmet, Thursday, Jan. 25; the English String Orchestra, Wednesday, Feb. 7; the Pilobolus Dance Theatre, Thursday, March 15; Orchester Der Beethovenhalle Bonn, Monday, March 28; and the Radio Symphony Orchestra of Berlin, Monday, May 7.

In addition, the Chieftains will perform Friday, Dec. 15. The Oscar-winning Chieftains are considered the world's most famous exponent of traditional Irish music, and have appeared around the world.

A variety of ticket packages are available for the eight regular concerts. The Chieftains appearance prices range from \$8 perseat to \$30.

For further information, call 739-3840.

Nov. 5th (Sun)

- call Multiple Sclerosis Society
 "Best Dam Bike Get Together"
 733-0073
- call Henderson Parks & Rec. LA Raiders vs. Cincinnati Bengals Excursion 565-2121 or 435-3814
- call Vegas Radio Control Racing 644-2386 or 878-8825
- 9 a New Life Foundation
 "Success Without Stress"
 Joan Philips 293-4444
- 1 p Maranatha Academy Entertainment Expo '89 Ronald Kusiak 791-1061
- 2p Nevada Symphonic Wind Ensemble 386-6383
- 2p UNLV Music Department 76 + 4 Trombones 739-3801
- 2p UNLV Theatre "Crooked River" 739-3801
- 3:30p Metaphysic Discussion Grp 798-8448
- 6:45p Friends Unlimited Singles Grp 451-0313
- 8:05p UNLV Running Rebels High 5 America Exhibition 739-3900
- 9p Matinee Swing Dance Club 458-5962

Nov. 6th (Mon)

- call New Hope-Adult Children of Alcoholics Sharon Meriwether 641-8605
- 5:30p American Cancer Society Support Group 798-6877
- 6p Domestic Crisis Shelter
 "Take Back the Night" March
- 6p 646-4981 Monday Niters Toastmasters Pete Savage 873-2739
- 6p The Scrabble Club
 Games & Social
 454-0620
- 6:30p North LV Lions
- 7p William Soyer 642-3871 Opti-Mrs. Club of LV Yolanda West 384-3351
- 7p Laughlin Lions
- George Hopkins 298-0620
 7p Eating Disorder Support Grp
- 364-1111 ext. 201
 7:30p Divorced & Widowed
 Adjustment Support Group
- 7:30p B-Sharps of Las Vegas Workshop
- Barbara 458-4167 7:30p Families Anonymous Support Group 732-3131
- 8p Joe Behar's Community Drama Workshop 457-0234



Community spotlight

Dentist Captures National Sculpturing Prize

by Joan A. Hall



Nov. 7th (Tue)

7:30a	Business Development Club
_	Bonnie Potter 454-3818
7:30a	Paradise Vailey Lions Club
	Jerry Moleton 731-5511
8 a	Silver Advantage Network
	UMC Chptr Walking Program
	383-2095
12n	Las Vegas Host Lions
	Charleen Lewis 453-4958
12n	LV Luncheon Optimist Club
	Randy Clark 876-0239
12n	S.E. Valley Exchange Club
	Gale Lane 457-0884
12n	Gashouse Gang Tstmstrs
	Crayton Jones 365-2009
12n	Silver Toasters Toastmsters
	Maureen Skinner 365-3427
12n	Paradise Seratoma Club
	387-9312
5 p	Arthritis Foundation
	"Knight to Remember" -
	Bachelor Auction
	367-1626
6р	Swing Dance Club
	736-2216
6:30p	Henderson/Green Valley
	Lions
	Richard Weidman 361-4446
6:30p	Las Vegas Sunrise Lions
	James or Jeff Cho 735-6666
6:30p	Actors Workshop
	Lori Noble 877-6463

6.20n	Lake Mead Parliamentary
0.30p	Unit - Lake Mead Unit
	Helen Askew 878-9705
C . 47	
6:45p	
_	Janice 739-6553
7 p	Big Brothers/Big Sisters
	Volunteer Orientation
	739-7818
7:30p	British Commonwealth Club
	Barry Anderson 438-2439
7:30p	
	Mineral Society
	Maureen 452-9306
7:30p	UNLV Performing Arts
	Chamber Music Southwest
	739-3801
7:30p	Mobile Homeowners League
•	of the Silver State
	384-8428
7:30p	Divorced & Widowed
	Adjustment Support Group
	735-5544
7:30p	Adult Children of
	Dysfunctional Families
	382-9939
8p	UNLY Running Rebels
-	vs. Soviet National Team
	739-3900
8:30n	Adult Substance Abuse Grp.
3.30p	734-6070
10p	lazz at the Hob Nob
ıvp	JAZZ AL UNE TIVO 1900

734-2426

ou're from where?"

"I'm a sculptor
and artist from
Nevada!" is the reply.

This litany was repeated many times after Las Vegas dentist Richard Blanchard won the first prize medal and \$1,000 top award in the Annual Sculpture House U.S. Open Sculpture Competition in Princeton, New Jersey.

His white marble bust of a Tibetan Nun with fingers touching in prayer and holding a rosary, won out over 2,300 entries in the Sculpture House's all media national competition.

"It seems that everyone outside the state of Nevada thinks we produce only extravagant stage shows, silver ore and monumental casino palaces," said Blanchard after he returned triumphantly to his Las Vegas home/art studio.

"Anything creative, outsiders feel falls into neon art, huge, flashing signs and one-arm bandit silk screen designs. It comes, it seems, as a complete surprise to residents of the other 49 states that there is a very lively art community here."

As well as being a practicing dentist in Las Vegas, Blanchard is also an accomplished sculptor and artist and works with multimedia including stone, wood, acrylic, pastels, pencil, oil, plaster, bronze, clay, aluminum and steel.

Currently he is working on

a major sculpture in limestone weighing in at 15,000 pounds; the subject being the "ecology statement." Another 31,000 pound piece awaits his talented art with mallet and chisel. These two huge pieces were trucked in from Indiana on a flatbed truck complete with crane which hoisted them into the artist's roomy backyard work area.

Although primarily selftaught, Blanchard has applied for acceptance at UNLV for a Master of Fine Arts course with concentration in sculpturing. His 12foot high Corenten steel contemporary work entitled "All in a Lifetime" stands outside the Donna Beam Gallery at UNLV and another large contemporary work graces the outdoor plaza of the Preferred Equities office complex on Paradise Avenue.

Blanchard was an early an active member and currently serves on the board of directors of the Desert Sculptors Association headquartered at Lorenzi Park. This organization is dedicated to promoting art in Nevada and to informing the public that they do not reside in a cultural desert.

In the meantime, Richard Blanchard the artist, marks his talent on this piece of stone and marks his time at its base with the age-old hash marks -- one day at a time.

Deadlines for submitting information to the Link are:

October 30 for December issue, November 30 for January issue, December 30 for February issue ... etc. Questions? ... Call us ... 368-1588.

Musical Arts Society Marks 27th Season

he Southern Nevada Musical Arts Society will open its 27th season with the first Las Vegas performance of Giuseppe Verdi's "Manzoni Requiem" since 1967.

The 150-voice Musical Arts Chorus and 50-piece Musical Arts Orchestra, along with guest soloists directed by Dr. Douglas R. Peterson, will present the masterwork on Sunday, November 26th. The performance will be given at 3:00 p.m. in Artemus W. Ham Hall at UNLV.

The Society's six-concert season will include performances of Joseph Haydn's "Lord Nelson Mass" and Mendelssohn's cantata, "As the Heart Longs for Streams of Water," Op. 42, by the Musical Arts Chorus & Orchestra. The season will close with the Society's annual "Pops Concert" featuring the music of Richard Rodgers.

The Musical Arts Singers will be heard in two programs: a Gilbert & Sullivan celebration and a concert of American folk music and spirituals.

For further information, call the Musical Arts Society at 451-6672. LINK



amily travel is no longer limited to Mom, Dad, and the kids. For many air travelers, "family" includes furry friends as well!

The Clark County Department of Aviation now offers the new publication, "Pets and Planes," to assist passengers with travel arrangements for their pets.



To ensure all goes well, an advance call to the airline is the first step. Whether a pet is going on board as a carry on, being checked as baggage, or

sent as cargo, the air carrier needs to know well in advance because special handling is required. Also, policies do vary between airlines. Some do not provide for pets, although standard policy for most air carriers is to accept one pet, per flight, as carry on.

When making flight plans. keep in mind that a pet could be exposed to possible flight delays. It is recommended that passengers travel on the same plane as their pet and to avoid connecting flights if at all possible.

Pet health certificates are usually required, as are USDA-approved kennels. Pets should fit comfortably in the carrier and must remain there during takeoff and landing, and while meals are being served.

"Pets and Planes" is available free of charge at each of McCarran's four public information booths or by contacting the Department of Aviation's Community Relations Office at 739-5211. **LINK**



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Nov. 8th (Wed)

- call Citizens Committee on Victims Rights Workshop 368-1533 North LV Womens Golf Assoc.
- 457-4159
- Boulder City Parks & Rec. Annual Turkey Shoot 293-9236
- The Leads Club 365-6283 or 454-6056
- Henderson Kiwanis Club Rex Newell 564-3333
- 11:30a LV Chamber of Commerce Womens Council Luncheon 457-8845
- Las Vegas Exchange Club Bob Griess 734-4424
- **Adult Children of Alcoholics** 734-6070
- Las Vegas 49er Lions Charlie Brown 384-2471
- 2:30p Kiwanis Club of Golden K Srs. Preston Reid 645-0141
- Boys Town Alumni Assoc. Don Charleboix 455-4099 5:45p Bachelors & Bachelorettes
- **Toastmasters** Mike Wilson 873-2739

- Assoc. of Professional Mortgage Women Shirley Jackson 877-9135
- 6:30p Amer. Business Womens Assoc.- Vegas Stars Chapter Eva McGough 453-5583
- 6:30p Amer. Business Womens Assoc.- Positive Image Chptr Debra Miller 364-1111
- Amer. Business Womens Assoc.- Gambeliers Chptr Lavern Brown 877-7861
- New Life Foundation "Success Without Stress" Joan Phillips 293-4444
- **Boulder City Lions** Robert Klein 293-2656
- Writers Group of Nevada Workshop 453-2454
- **Evening Optimist Club** 7 p Joe Schleef 457-0611
- 7:30p City of Las Vegas American Film Classic- "The Manchurian Candidate" 386-6383
- Las Vegas Jaycees Todd Stewart 457-8832
- 12mid Darwin's Magic Club 365-1328

"Knight To Remember" Set For November 7

ome of Las Vegas's best catches will put their "freedom" on the line Nov. 7 when they are put up for auction.

It will be the third annual Bachelor Auction to benefit the Southern Nevada chapter of the Arthritis Foundation.

The 6 p.m. event -- doors will open at 5 p.m. -- will be held in the Lido Showroom of the Stardust Hotel and Casino.

Among some 30 bachelors who will appear will be KLUC radio morning announcer, Mike O'Brien and KTNV-13 news anchor, Kyle Meenan.

Though this will only be the third auction, the event has already become one of the more popular charity "happenings" in Las Vegas, according to chapter official Paula Hornbuckle.

"We raised \$15,000 the first year and \$17,000 last year," she said. "The guys really seem to like it."

She said most of the bachelors are "high-level executives who either own their own businesses or are in top management in companies in town."

The dates the lucky winner and the bachelor go on "are arranged for by us," Hornbuckle said. "We have several companies donate such things as dinners, air fare and the like," she noted.

For further information, contact the Southern Nevada branch of the foundation at 367-1626. **TIME**

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After October 1, our extended hours will be 8 AM to 6 PM, 7 days a week.

Native American Crafts On Display At Lorenzi Park

ative American entertainers, artists and craftsmen from all over the Southwest will be participating in the 7th Annual Las Vegas Indian Days on November 3, 4 and 5, at Lorenzi Park, the new location of the Nevada State Museum & Historical Society.

This cultural festival is being held through the joint efforts of the museum and the Pow Wow of the Four Winds, a non-profit group formed by Delaine Spilsbury, a Shoshone from northern Nevada, to encourage the continuance of the Native American cultural heritage of song, dance, music, story telling and skilled arts and crafts. The event will run from 10:00 a.m. to 5:00 p.m. all three days.

The festival will coincide with the opening of an

exhibit of Southwestern Indian and landscape photographs by noted artist Laura Gilpin. The collection is on loan from the Museum of Fine Arts in Santa Fe, New Mexico. On Friday, November 3, there will also be a special outdoor program for school children, which is free to the public.

Fancy and traditional dances will be among the featured entertainment

during the three-day festival. The arts and crafts exhibited represent a wide range of Native American creative talents. Paintings, carvings, pottery, weaving, basketry,

Please see 'Indian Days,' Page 11

Nov. 9th (Thur)

call	Citizens Committee on
	Victims Rights
	Workshop 368-1533
7 a	LV Breakfaster Lions
	Mark Trinko 453-4958
8 a	Silver Advantage Network
	UMC Chptr Walking Program
	383-2095
12n	Uptown Kiwanis Club
	Sam Head 455-3530
12n	West Charleston Lions
	Dick Grilz 362-8295
12n	Las Vegas Civitan Club

- 5:30p Active Republican Women's Club of Las Vegas

 Marge Pacheco 363-7701
- 5:30p Tall Singles Club 453-2681
- 5:45p I'll Drink to That Toastmasters Terri Williams 735-7403

6р	CCCC Planetarium
	"First Light & Arctic Lights"
	643-6060 ext. 335
6:30p	Amer. Business Womens
	Assoc Mojave Rose Chptr
	Brenda Sprouse 735-2990
7 p	Pro Choice Advocacy Grp
	798-7009
7 p	Rainbow Company
	"Really Rosie"
	386-6383
7p	Christian Toastmasters Club
	Charles Neil 799-6830
7:30p	Phobic Support & Assistance
	Peggy 364-1111
8р	UNLY Music Department
	Community Concert Band
	739-3801

739-3801 P National Space Society 643-6060 ext. 335

Nov. 10th (Fri)

1		TOTAL TOUT (FIT)
	7:30a	Valley Voices & Vices Toastmasters
	11:45a	Lorri Jackson 435-7678 Int'l Assoc. of Business Communicators
	12n	High Noon Lecture Tstmstr
	5p & 8p	Highschool Triple A Football Playoffs
	7 p	799-5456 New Life Foundation
	7:30n	Joan Phillips 293-4444
	7.5 0p	"First Light & Arctic Lights" 643-6060 ext. 335
	7:30p	B-Sharps of Las Vegas Dance 458-4167
	5p & 8p 7p 7:30p	Shellie Williams 385-3677 High Noon Lecture Tstmst Donna Milcarek 362-263: Highschool Triple A Football Playoffs 799-5456 New Life Foundation "Success Without Stress" Joan Phillips 293-4444 CCCC Planetarium "First Light & Arctic Lights" 643-6060 ext. 335 B-Sharps of Las Vegas Dance

t all started out as just your garden variety do-it-yourself project. Building a gazebo. The 'garden,' in this case, is this mountain property we acquired several years ago, 7500 feet up in the cool, clear air of Southern Utah. It's smack in the center of the Beehive State's Color Country. Zion and Cedar Breaks are over there...Bryce Canyon is up that way, and over the mountain in the other direction is Grand Canyon. At night, the stars are so profuse that I'm hardput to locate even the few constellations I can remember. They're lost in a scintillating celestial carpet.

And the trout fishing... But I digress!

The decision to build the gazebo was born out of frustration...partly that...and partly out of psychological need to do something totally different from what I do all day, every day, in the work-a-day world, which is to deal with computers and with people...neither of which I fully understand.

Summer's over now.

There's been a series of very physical weekends devoted to this obsessive thing, not to mention at least a thousand bucks worth of lumber. The gazebo! I've got to get it done. I even had to take a week off, else I'd never accomplish my goal to at least get a roof on it before the snow flies. I think I'm going to make it.

I don't hate it. Oh no, I love it! It has given me hours of priceless therapy.

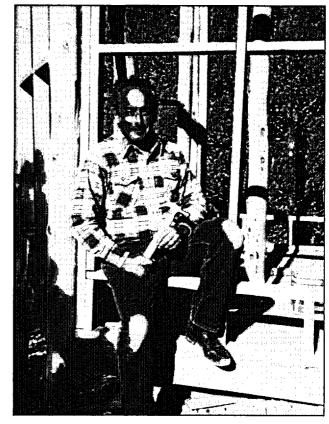
And my wife and I worked on it together. And doing something like this gives one a lot of time to think. It kind of gives you a clean slate in your head, upon which you can doodle and design at will. I thought about how nice my gazebo is going to be. How much I am going to enjoy it. And my children. And my grandchildren. And maybe even generations to come. And I thought about the party I'm going to have to christen it...next year on the 4th of July. It seems only fitting that we launch this gazebo on the 4th of July, with hot dogs and apple pie. I wonder,...maybe I could promote a marching band.

Somewhere along the line, about this time, it hit me. "You're not building a gazebo," I said to myself. "You're building a freakin' monument! That's what it is...a monument."

By gadfrey, I guess it is. I had never thought of it in those terms. But I did remember one of my daughter's kids mentioning, at some point, the idea of putting a sign on it proclaiming "Grandpa's Gazebo."

Speaking of monuments, what about our children? I never saw them in that light before. Monuments? Most certainly, though neither one of us can take total credit for their construction, they are an accomplishment of which we are immensely proud.

Come to think of it, there are other monuments which have been erected along



the path of my life. Little things, some of them. A couple of things I've written, a few pictures, some ideas and things I've built, several enduring friendships, some loves and a lot of laughs.

Everybody's got them. It's hard to imagine that anyone spends his or her three score and ten on this planet without leaving something behind as a monument to his presence.

I just really never thought about it that way before.

But you know...when I get that gazebo built, I'm going to have a lot to think about. Care to join me? Right after the 4th of July.

Nov. 11th (Sat)

call Clark County, NV
Genealogical Society
Joyce Morris 456-4497

9 a New Life Foundation
"Success Without Stress"
Joan Phillips 293-4444

1:30p Las Vegas Today Show
Filming
Sandy Zimmerman 731-6491

3:30p & CCCC Planetarium

7:30p "First Light & Arctic Lights"

643-6060 ext. 335
7 p Rainbow Company
"Really Rosie"
386-6383

Nov. 12th (Sun)

call Vegas Radio Control Racing Group Remote Control On-Road Racing 644-2386 or 878-8825 New Life Foundation "Success Without Stress" Joan Philips 293-4444 1 p Joe Behar's Community Drama Workshop 18th Annual Showcase 457-0234 Rainbow Company 2 p "Really Rosie" 386-6383 Henderson Parks & Rec. 2:30p Ann George & The Olde World Musicians 565-2121 3р Clark County Library Serenata Chamber Orchestra Performance



If you're enjoying the Link, please subscribe. See page 12.

733-7810

Las Vegas 2000_

Cont. from Page 1 made available for young people who want an option other than college.

The demands of transportation in the "valley of the future" call for an agency designated to project traffic patterns and populations and to study means of transportation that can work together with mass transit.

Things will look up for the downtown area -- its future is in upscale retail and housing and improved infrastructure. This direction needs to be encouraged.

The cultural climate of Southern Nevada can be developed through partnerships between institutions such as the Clark County School District and UNLV, which can heighten cultural awareness among young people. Legislative barriers to funding cultural activities in the community must be removed.

To make sure the city does not forget its past as it forges its future, care must be taken to preserve historic buildings and neighborhoods. The Old Fort can be the centerpiece of the city's evolving Cultural Complex at Las Vegas and Washington Boulevards, the Las

Vegas High School neighborhood should be declared a historic district where new structures and remodelling of old structures is limited, and the Union Pacific Storehouse Building should be included in any planned development of the UP property.

Finding new sources of water and ways to reuse lesser quality water are priorities. To protect air quality, gas logs will replace fireplaces and the negative impact of motor vehicle exhaust and congested roadways must be restricted.

Improving professional, post-secondary and pre-school education are also priorities. Classes in parenting skills must be made available as well.

Ways must be found to anticipate the demands of growth on the infrastructure and how those needs would impact services such as traffic systems, water and energy supply and delivery, air quality and crime control.

During the next year, recommendations made by project members will be incorporated into an overall strategic plan that can be implemented.

November: National Diabetes Month

Cont. from Page 1 two-mile walk against diabetes at 7:30 a.m. followed by a 10 kilometer race at 8:00 a.m. The pig kissing contest will be at 10:30 a.m

There will be 120 canisters located throughout the valley. People are asked to put in a donation with a

vote for Lurie, Dondero or Britton. The lucky winner gets to smooth the swine.

"We are committed to make a difference," said O'Neil Brereton, ADA's executive director.

For additional information on this innovative event, contact O'Neil Brereton at 369-9995. LINK

Nov. 13th (Mon)

ľ			
call	New Hope Adult		
	Children of Alcoholics		
	Sharon Meriwether 641-8605		
1p	Daughters of the		
[American Revolution		
	878-5295		
5:30p	American Cancer Society		
	Support Group		
	798-6877		
6 p	The Scrabble Club		
	Games & Social		
İ	454-0620		
6:30p	North LV Host Lions		
	William Soyer 642-3871		
6:45p	Goalsetters Toastmasters		
1	Mary Goodwin 646-1932		
7 p	Desert Springs Hospital		
	Health Seminar		
	369-7748		
7p	Eating Disorder Support Grp		
	364-1111 ext. 201		
7:30p	Cactus & Succulent Society		
	Walter Balke 459-4667		
7:30p	B-Sharps of Las Vegas		
	Workshop		
	Barbara 458-4167		
7:30p	Divorced & Widowed		
	Adjustment Support Group		
	735-5544		
7:30p	Families Anonymous		
	732-3131		
8р	Joe Behar's Community		
ļ	Drama Workshop		

St. Judes Ranch for Children

457-0234

18th Annual Showcase

a non profit, non sectarian facility for the care of homeless children

293-3131

Nov. 14th (Tue)

- 7:30a LV Chamber of Commerce Business A.M. Breakfast 457-8845
- 7:30a Latin Chamber of Commerce Career Day Scholarship Program 385-7367
- 8 a Silver Advantage Network UMC Chptr Walking Program 383-2095
- 11:30a American War Mothers -Chapter #1 Leola Scott 452-3736
- 12n Las Vegas Host Lions Charleen Lewis 453-4958
- 12n LV Luncheon Optimist Club Randy Clark 876-0239
- Gashouse Gang Toastmasters Crayton Jones 365-2009
- 12n Paradise Seratoma Club
- 387-9312 6p Nat'l Assoc. of Accountants
- Roger 382-1340 6p Swing Dance Club 736-2216
- 6:30p Amer. Business Womens Assoc.- Desert Dawn Chapter Linda Utterback 564-2467
- Actors Workshop Lori Noble 877-6463 6:30p The Pittsburg Club
- Milly Clark 870-2234
- 6:30p LV Executive Lions Club Charles Sorrells 385-3703
- 6:45p Sweet Adeline Chorus of LV Janice 739-6553 Clark County, NV 7 p
- Genealogical Society Linda McEwen 646-2222 7:30p Divorced & Widowed
- 735-5544 7:30p Adult Children of **Dysfunctional Families** 382-9939
- 8:30p Adult Substance Abuse Grp 734-6070

Adjustment Support Group

THE WARNING SIGNS OF DIABETES

The warning signs for Type I (insulin dependent)

- diabetes are:
- o frequent urination
- o sudden weight loss
- weakness
- o fatigue
- o irritability
- o nausea-vomiting
- o excessive thirst
- o extreme hunger

Type II warning signs include all of Type I plus:

- o blurred vision or any change in sight
- o tingling or numbness in legs, feet or fingers
- o slow healing of cuts (especially on the feet)
- o frequent skin infections or itchy skin and drowsiness.

Gestational diabetes is developed by some women during pregnancy, but it usually disappears after the baby is born. However, 50 percent of these women will develop Type II diabetes.

Some of the major problems that occur because of the disease include blindness, kidney disease, amoutations, heart disease, strokes and birth defects.

Nov. 15th (Wed)

- call Charleston Heights Arts Ctr Public Art Proposals for City Hall 386-6383
- call North LV Womens Golf Assoc. 457-4159
- 7 a Breakfast Club Tom Dudas 731-5161
- 7 a The Leads Club 365-6283 or 454-6056
- 7 a Henderson Kiwanis Club Rex Newell 564-3333
- 11:30a Postal Customer Council Violette Miller 361-9372
- 11:30a Temple Beth Shalom Sisterhood Luncheon 732-0556
- 12n Las Vegas Exchange Club Bob Griess 734-4424
- 12n Las Vegas 49er Lions Club Charlie Brown 384-2471
- 12n Adult Children of Alcoholics 734-6070
- 1 p Dula Community Center "55 Alive" - Refresher Driving Course 386-6454
- 2:30p Kiwanis Club of Golden K Srs. Preston Reid 645-0141
- 5p So. NV Employees Services & Recreation Association Randy Clark 876-8080
- 5:30p So. NV Assoc. of Secretarial Services Gerri McKernan 798-7939
- 5:30p National Assoc. of Women in Construction Vicki 451-6304
- 5:45p Bachelors & Bachelorettes Toastmasters Mike Wilson 873-2739
- 7 p Desert Springs Hospital Compulsive Gambling Smnr. 876-4357 ext. 125
- 7p New Life Foundation
 "Success Without Stress"
 Joan Philips 293-4444
- 7p Assoc. Builders & Contractors 384-5322
- 7p Writer's Group of Nevada Workshop 453-2454
- 7 p Sir Metropolitan of Las Vegas Jean Mann 876-2271
- 7p Evening Optimist Club Joe Schleef 457-0611
- 7:30p National Council of Jewish Women 732-0556
- 8p Las Vegas Jaycees Todd Stewart 457-8832 8:05p UNLV Running Rebels
- vs. Loyola Marymount 739-3900
- 12mid Darwin's Magic Club

Gang Awareness Seminar

CA Montevista
Hospital is proud
to present a free
seminar, "Gangs: Guns,
Dust, Crack and Crank," by
Jim Davis of the Los Angeles
Police Department.

The seminar will be held on November 1, 6:00 pm -8:30 pm, at Montevista's medical office building, 6000 West Rochelle Avenue.

Participants will learn to identify signs of street gangs in the community, such as graffiti, hand signals and dress, along with the methods associated with gang-related street crimes.

Since seating is limited, participants are encouraged to pre-register. Call 251-1202 or 364-1111, extension 101 for information and reservations.

MONTEVISTA HOSPITAL

Inpatient Programs for

Children
 Adolescents
 Adults
 Seniors

Treating

- Depression
 Phobias
 Eating Disorders
 Behavioral Problems
 Chemical Dependency
- · Specialized Day Hospital Programs For Adults ·

24-Hour COMPASS Mobile Crisis Team Provides Immediate, Free Assessment and Referral Service.

Treatment is covered by Champus, Medicare and most insurance policies.



364-1111

HCA Montevista

5900 W. Rochelle Avenue Las Vegas, Nevada 89103

Fully Accredited by the Joint Commission on Accreditation of Hospitals.

_Indian Days____

Cont. from Page 8
jewelry, Kachina dolls,
beadwork, featherwork and
leatherwork are among
those on display. Many of
the craftsmen will demonstrate their skills by creating
original works of art. A raffle
of Native American art will
be held each day.

Traditional Indian foods such as fry bread, Navajo tacos, homemade tamales, buffalo jerky and pueblo pie will also be available.

For more information, contact the Nevada State Museum at 486-5205 or Delaine Spilsbury at 642-6674.

_Yucca Mountain Facts __

cont. from Page 3
accumulated 35,000 metric
tons ready for storage...It is
projected that by 2010 the
repository will be filled."

If the next five to seven vears of study demonstrate that Yucca Mountain is a safe site for storing the repository, and if the Nuclear Regulatory Commission issues a license for construction of the repository, the current plans are that waste would not be received at the site until 2003. The current plan is to receive waste over a period of 50 years until the total capacity of 70,000 metric tons is reached.

According to 1988 data, 30,900 metric tons will be ready for storage in 1990. This will increase to 40,300 metric tons by the year 2000.

The total capacity of the proposed repository would not be reached for at least another 30 years.

In summary, no other project in the history of mankind will be subjected to the scrutiny that Yucca Mountain will undergo in the next five to seven years. Only thorough and exhaustive scientific research can determine if Yucca Mountain is a safe and suitable site for the proposed repository.

The NNWSC maintains an active speaking bureau that looks forward to providing other Nevada citizens with the facts about Yucca Mountain. We would welcome the opportunity to talk with your group. For more information please call 791-6972.

Interested in subscribing to the Link?
Turn to page 12 for details or call 368-1588.

NETWORK UPDATES

On Tuesday, November, 14, the National Association of Accountants will present Michael Kaplan, a CPA with Duitch & Franklin. The program is entitled "Forensic Accounting." Cocktails are at 6 p.m., dinner at 7 p.m. and the program at 8 p.m. For further information and reservations contact Roger at 362-1340.

The Las Vegas Convention and Visitors Authority will open the first of several Visitor Information centers on November 1. The Center is located on I-15 South. between Whiskey Pete's and the Gold Strike. The visitor center program is designed to promote all aspects of Southern Nevada to tourists--eventually all major tourist arteries will be serviced by a center. The LVCVA is interested in literature/brochures which promote the cultural events, the arts and scenic attractions. For more information contact Glenn Shaw at 733-2336.

Nevada Executive Women and Community Action Against Rape are working together to present the First Annual Wine, Cheese & Art Festival on Sunday, November 19, 2:00 pm to 5:00 pm, at the California Hotel & Casino. Aside from wine-tasting and cheesesampling, the event will feature selected works by local artists. All proceeds will benefit CAAR. For information contact Mary Grego-Smith at 388-2627.

The Desert Sands-Las Vegas Chapter of the Public Relations Society of America is composed of Las Vegas' top public relations professionals with members in the gaming, utility, and non-profit organizations. The Las Vegas chapter is one of PRSA's over 100 chapters forming a national association with 15,000 public relations practitioners, and is organized to promote and encourage professionalism in the public relations field. The group meets on the last Friday of each month at 11:30 a.m. For information call Rick Dale at 791-2377.

'Tis almost the season! The American Heart Association presents the Southern Nevada holiday greeting card -- a landscape scene which captures the spirit of the season. The card will be available for sale on November 3 to help raise funds for the American Heart Association. For details call 367-1366.

The Nevada Breakfast Club exists to encourage a cooperative movement of those who are working to bring about constructive changes in their homes, communities, and governing institutions, regardless of party affiliation, social standing, religious belief, or ethnic background. If you are similarly motivated, call 647-0490.

Winchester Center offers a wide variety of programs and special

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events with seniors in mind. loin them for movies, pot lucks, field trips and many special events. Contact Carol Fuqua at 455-7340 for a copy of the monthly Senior Happenings newsletter.

The Lulac Senior Center serves a daily meal at 11:45 a.m. to all Spanish speaking seniors 60 and over. The center provides translation, social services and various other services; a schedule of activities is available. For more information call program director, Yolanda Diaz, 385-0909.

The Nevada State Museum & Historical Society cordially invites you to attend an exhibit of works by Ansel Adams, from the collections of the Museum of New Mexico, Museum of Fine Arts, The exhibit is open to the public daily, 8:30 am to 4:30 pm, through November 26.

The following are recognized by the Christian Chamber of Commerce (451-8996): Christian Business Men's Fellowship - men and women serving Jesus through various ministries - Steve or Lois Fulwider, 451-8998. Discovery Ministries - outreach for teens - Ted & Isie Vigell, 647-5769. L.A.C.E. - Ladies Advocating Christian Entertainment -

Joyce Eatman, 594-3305. Sewing Ministries - training men and women to sew for the needy - Gary Roberts, 871-1762.

Exodus - vouth correctional ministry - Chaplain Tony Giacopelli, 458-0808.

Aerobics is Fun is celebrating its first birthday with a 'two free classes' special in November. This low-impact program is located at the Fern Adair Conservatory of the Arts. Morning and evening classes available. For more information call 458-7575.

Federally Employed Women (FEW), an organization for opportunity and equality for women in government, is the only national organization solely concerned with eliminating sex descrimination in the federal service. For information on the Southern Nevada Chapter of FEW call 648-5816 or 458-6644.

The Charleston Heights Arts Center Gallery is presenting Visual Artists in Education, November 19 through December 18. The Artists in Education exhibition provides the opportunity for professional artists, educators, and students to work together on creative projects in residencies ranging from two weeks to eight months. This exhibit encourages appreciation and support for the arts and for arts education programs within both school and community settings. On loan from the Arizona Commission on the Arts, the AIE exhibit presents the work of current Visual Artists in Education in the state of Arizona. For information call 386-6383.

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> 1 year (12 issues) - \$27 (Rate includes sales tax.)



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Please complete this Subscription Form with check made payable to: The Southern Nevada Link -3370 Pinks Place, Suite F, Las Vegas, Nevada 89102 (702) 368-1588.

NETWORK UPDATES

Bridge Counseling Associates, a non-profit agency, are offering the following groups: Adult Substance Abuse Group, Tuesdays 8:30-10:00 pm. This group is for adult substance abusers in the beginning stages of recovery. Issues to be explored will include understanding how substances affect your life and adapting to a drug-free lifestyle. **Adult Children of Alcoholics** Group, Wednesdays 12:00-1:30 pm. This group is for adults who grew up in an alcoholic environment. Issues to be explore will include how the dysfunctional family unit has been internalized by the individual and plans of action to make effective changes. Contact Bridge Counseling Associates 734-6070 for more

The Nevada Guitar Society is presenting a gala concert November 18, 8 pm, at Artemus Ham Hall. NGS presents the winner of the 1988 Guitar Foundation of America International Competition, Oliver Chassain, from France. This recital is the Annual Fundraiser to benefit the various programs of NGS in 1990. For ticket information, call 798-8077.

information.

A piece of advice taken from the YMCA's quarterly newsletter, "Open Line to Wellness." When you drop something on the floor while sitting at your desk chair, use the back saver: 1. Slide to the edge of your chair. 2. Put one hand on the edge of your desk and one foot out in front of you. This allows your arm and your leg to bear most of your weight so your back muscles won't have to.

The Nevada PTA and the Clark County School District are cosponsoring a "Parent Pride Conference", Saturday, November 18, 8:00 pm-12:30 pm. The conference will be a selection of workshops targeting child and youth oriented workshops. For more information contact the Nevada PTA at 646-KIDS.

"First Light -- The Space Telescope Story" will premier November 2 in the Clark County Community College Planetarium. Through an exciting blend of special effects, music, photographs and narration, "First Light" explores the fascinating world which the Space Telescope will reveal to us when it is launched in March, 1990. The show examines how the telescope's space-age technology will bring distant galaxies into sharper focus and provide a more detailed view of our own solar system. For additional information on the Planetarium's

programs call 643-6060 ext. 335.

The Mobilehome Owners League of the Silver State is an organization representing mobilehome owners throughout the state of Nevada, its main objective being to lobby for laws to protect the mobilehome owners and educating the mobilhome owners of these laws. A non-profit organization, the League holds ameeting on the first Tuesday of each month. All mobilehome owners are invited to attend these informative meetings and are welcome to ask questions or speak on issues concerning mobilehome living. For information on becoming a member of MOLSS, call 384-8428.

SIDS is a major cause of death in infants between the ages of one week and one year. Last year in Clark County, SIDS claimed the lives of 28 infants. The American Lung Association, in conjunction with the Clark County SIDS chapter, provides a support program for families, friends and others affected by the loss of an infant to SIDS. Services supplied include: monthly support meetings, telephone support network, seminars and workshops for health care professionals and the public, publishing and providing information to heighten public awareness. For more information contact the SIDS chapter at 455-4103 or the American Lung Association Office at 454-2500.

A bit of wit and wisdom taken from the Exchange Club of Las Vegas' newsletter, "Bullsheet." Wit: "You should be tolerant of the person who disagrees with you ... he has a right to his ridiculous opinion!!!!" Wisdom: "To build membership all you've gotta do ... is ask 'em." To become involved with this wise and wacky group contact Bob Griess at 734-4424.

Joe Behar, the founder/director of the Community Drama Workshop will direct their 18th Annual Showcase on Sunday, November 12, at 1 p.m. and Monday, November 13, at 8 p.m.. Both performances are free. Due to limited seating, please call for reservations, 457-0234.

In an effort to meet the physical and mental health needs of its employees, Clark County has hired a Wellness Coordinator to promote the health and wellbeing of all County employees.

The Nevada State Museum and Historical Society at Lorenzi Park encourages the use of the museum's facility for rental by public and private groups, organizations, and other institutions. For information on using the museum's facility. contact Art Wolfe at 486-5205.

The American Cancer Society offers an ex-smokers support group every Monday at noon and 6:00 pm. Call 798-6877.

Is This Where Your Direct Mail Campaign Is Being Delivered?

Hopefully not, but if you want to make a comparison between Direct Mail Companies, this is, without a doubt, where the difference can be determined. Is my Direct Mail being opened and read or "circular filed?" It's very easy to determine ... It's in the measure of your RESPONSE; and since that's the name of our company, that's exactly the service we provide for our clients. What's the secret? It's simple. With a concept to completion service, we create the design, do the printing and target the audience to assure you that your advertising message will be received with "favorable attention."



RESPONSE **MAILO**

Special allowances always aiven for non-profit budgets.

Call 791-3340 Today!

Nov. 16th (Thur)

- call Mirabelli Community Center Table Tennis Tournaments 386-6297
- 7 a Las Vegas Breakfaster Lions Mark Trinko 453-4958
- 7:30a Eastridge Personnel
 "Hiring & Discharging
 Employees" Seminar
 Erin Estes 732-8855
- 7:30a LV Success Network Steve Reed 791-3287
- 8 a Silver Advantage Network UMC Chptr Walking Program 383-2095
- 11:45a Women in Communications Sidra Kain 794-0405
- 12n Uptown Kiwanis Club Sam Head 455-3530
- 12n North LV Chamber of Comm. Monthly Luncheon 642-9595
- 12n Henderson Chmbr of Comm. Monthly Luncheon Sharon Wood 565-8951
- 12n West Charleston Lions Dick Grilz 362-8295
- 12n Las Vegas Civitan Club 565-5905
- 1 p Dula Community Center "55 Alive" - Refresher Driving Course 386-6454
- 2 p Christian Business Men's Fellowship Int'l Steve Fulwider 451-8998
- 5:30p Tall Singles Club 453-2681
- 5:45p I'll Drink to That Toastmasters Terri Williams 735-7403
- 6p Amer. Business Women's Assoc.- Silver State Chapter Doris Vondy 645-0037
- 6p CCCC Planetarium
 "First Light & Arctic Lights"
 643-6060 ext. 335
- 7 p Jewish Women's Business & Professional Forum 732-0556
- 7 p New Life Foundation
 "Success Without Stress"
 Joan Philips 293-4444
- 7p Clark County Library Readers Program "Salinger's Expose" 733-7810
- 7:30p Phobic Support & Assistance Peggy 364-1111
- 8 p CCCC Planetarium
 "So You Want to
 Buy a Telescope"
 643-6060 ext.335
- 8p Henderson Parks & Rec.
 "Financial Planning for
 Retirement" Seminar
 565-2121 or 435-3814
- 8p UNLV Performing Arts
 "The Vienna Boys Choir"
 739-3801

Are you living proof?

The Nevada Safety Council
is looking for people who have
been involved in an accident and
spared serious injury as a result of
wearing seatbelts.

735-1700

Sports link

Las Vegas Batting Zero On Baseball

by Joe Cross

aybe the car company commercials of a few years ago should have gone "Baseball (and kids), hot dogs, apple pie and Chevrolet."

At least they've found out this year that baseball and kids sure do go together in Las Vegas.

Now all they have to do is convince some adults of that fact.

The Las Vegas Instructional Winter League base-ball program has suddenly become the most popular youth-oriented athletic effort in the community outside of the schools. Over the past three years, the league has grown from 46 teams to a whopping 108 this fall.

But there's one sad drawback -- despite some

excellent organization on the part of the league's directors, the business community hasn't exactly gotten on the band wagon. According to league official Dick Gondini and president Chuck Baker, only 52 Along with trying to find some help to run the regular portion of the league, officials are also trying to get backing for a tournament during Thanksgiving weekend.

"We want to take some

" ... Over the past three years, the (Winter) league has grown from 46 teams to a whopping 108 ... "

Nov. 17th (Fri)

- 7:00a Nat'l Association for Professional Saleswomen Gail Bruno 364-2252
- 7:30a Valley Voice & Vices Toastmasters Lorri Jackson 435-7678
- 12n . Amer. Soc. of Training & Dev't Howard Pearson 564-2544
- 12n High Noon Lecture
 Toastmasters
- Donna Milcarek 362-2632 12n Latin Chamber of Comm. Monthly Luncheon
- 385-7367
 7p Rainbow Company
 "Really Rosie"
 386-6383
- 7 p Highschool Football Championship Playoffs 799-5456
- 7:30p CCCC Planetarium
 "Frist Light & Arctic Lights"
 643-6060 ext. 335
- 7:30p B-Sharps of Las Vegas Dance 458-4167
- 8p B'nai B'rith Men,s Meeting 732-0556
- 8p New West Stage Company
 "Chekhov A Night
 of Comedy"
 386-6383
- 8:05p UNLY Running Rebels vs. TBA 739-3900
- 8:30p Artemus Ham Hall Jean Luc Ponty 739-3801

sponsors have been found so far, and Gondini and Baker admit they're disappointed.

"We really need a lot more sponsors," Baker said. "We (directors) have put out a lot of money from our own pockets -- but we'll do anything we can to keep the kids off drugs and the streets."

As an example, Baker said it costs \$350 for uniforms, \$20,000 for equipment and another \$11,000 for the baseballs. That doesn't take into consideration such things as field rentals and umpire fees.

"I wish we could get more sponsors because this is a very good program," Baker said. "It is one of those programs you keep hearing about as being needed for the youth to keep them involved." of our best teams in the major (11- to 12-years-olds), junior (13-year-olds), and seniors (14- to 15-year-olds) to play against teams from Arizona and California," Gondini said. "Palace Station has offered to help us, but we would like to find at least one corporate sponsor to get involved in helping defray some of the costs."

"We stress that this is an instructional league," Baker said. "We don't keep regular standings or averages during the year which helps take some of the pressures off the coaches. Learning is more important to us than keeping win-loss records."

Anyone interested in further information on how to help the league can call Gondini at 459-4138.

Nov. 18th (Sat)				
call	Federally Employed Women	2p &	Rainbow Company	
	LA Garment District Bus Trip	7 p	"Really Rosie"	
	648-5816 or 458-6644		386-6383	
call	Sweet Adeline Chorus of LV	2 p	Clark County Library	
	Annual Concert		Readers Program	
	Janice 739-6553		"Salinger's Expose"	
call	Henderson Parks & Rec.		733-7810	
	L.A. Garment District Trip	2:30p	UNLV Football	
	565-2121 or 435-3814	•	vs. Utah State	
call	Boulder City Elks		739-3900	
	"Hog Calling" & Dance	3:30p	CCCC Planetarium	
	293-2457	&	"First Light & Arctic Lights"	
8 a	NV PTA - Parent Pride	7:30p	643-6060 ext. 335	
	Conference 646-KIDS	7 p	LV Chamber of Commerce	
11a	Nevada School of the Arts	-	Installation Gala	
	Workshop		457-8845	
	739-3502	8 p	Nevada Guitar Society	
12n	M.A.D.D.		Gala Concert	
	Parade		739-3801	
	457-6233	8p	New West Stage Company	
1:30p	Las Vegas Today Show	•	"Chekhov - A Night	
•	Filming		of Comedy*	
	Sandy Zimmerman 731-6491		386-6383	

Nov. 19th (Sun)

call	Opportunity Village "Turkey Trot" 384-8170	2р	Nevada Executive Women Wine, Cheese & Art Festival Mary Grego-Smith 388-2627			
call	Charleston Heights Arts Ctr. Visual Arts in Education 386-6383	2:30p	Nevada Guitar Society Meeting 798-8077			
9 a	New Life Foundation "Success Without Stress" Joan Philips 293-4444	3р	American Red Cross Holiday Auction 384-1225			
2р	Las Vegas Symphony Orch. Concert 739-3420	7 p	Rainbow Company "Really Rosie" 386-6383			

Best Dam Bike Get-Together In The Southwest

ike the brochure said, it's going to be the Best Dam Get-together in the Southwest. Which means the Fourth Annual Security Pacific Bank's Best Dam Bike Get-Together is almostupon us.

This year's event will be held Nov. 4-5 with proceeds going to the National Multiple Sclerosis Society.

With a long list of prizes -including a first place award of a vacation for two in Kauai, Hawaii -- officials say they expect a large field of riders to take part in the 160mile ride that will wind up with a beach party at the Buckskin Mountain Park on the Colorado River.

To be eligible, riders must obtain at least \$150 in pledges -- with a variety of prizes going to people who

raise \$300 and more. To be eligible for the grand prize, riders must raise at least \$4,500 in pledges.

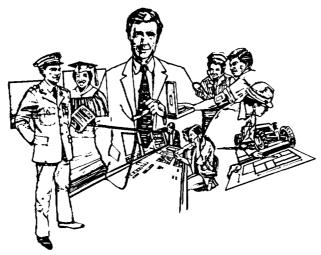
The two-day ride begins at the southern edge of Las Vegas and riders will take a route that brings them to the tri-state junction of Nevada, Arizona and California, where lunch will be served.

Needles, Calif., will be the overnight stop. A number of special events are planned that night.

The second day's route takes the riders along the Colorado to Lake Havasu City and across the London Bridge to Parker, Ariz., where the event winds up -- the riders from Las Vegas join with a similar group which will start in Phoenix.

For further information, call 733-0073. LINK

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There's No Place Like Home, But...What If "Home" Is..."No Place?"

by Jerome Herrmann

omelessness is defined H as families or youth living in temporary shelters (hotels, motels, parks, etc.) for a period of less than six months and/or relocating more than once to obtain shelter within six months.

Families?

Yes, even the homeless have children and that is where the homeless problem becomes a complex one.

What's the experience of being homeless like to a child? The state of being homeless is a new subculture in the United States and the initiation into that culture is swift, harsh, often cruel. Not only do the homeless have to learn new coping techniques quickly, but they must also unlearn many old patterns. Household habits, customs and rules are meaningless. Cleanliness, bedtime, curfew -- forgotten and ridiculous patterns.

Because homeless children and youth often do not have health insurance or the money necessary to pay for medical and dental care, such care is generally provided on a crisis basis.

Medical problems are ignored until the problem becomes acute and medical attention is essen-

The lack of a nutritious diet at an early age may adversely affect the health of homeless children and youth and result in physical problems that plague the child into adulthood.

A third major cause of poor health conditions of homeless children and youth is the mobility of their lifestyles. Such mobility often results in a lack of continuity of health care. Continuous supervision of a medical problem by one physician canot be provided.

The Clark County School District may be large, but as service providers with our focus on children, we at the district have not lost our humanitarian approach. We want to call attention to a new concept that has been introduced to help these children.

The passage of the Stewart B. McKinney Homeless Assistance Act of 1987 requires all homeless children ages 7 to 17 to be enrolled in school. Our own

district requirements, such as verification of a permanent address, birth certificate and immunization records, are often barriers to these students to being enrolled. Some of these young people would never be able to get past an attendance clerk or secretary to seek help -- all they need is an advocate!

The Pupil Personnel Services of our school district has developed a voucher that will be distributed at our local shelters. This will alert whoever interacts with the child at school that this child is homeless and needs special attention.

The district's Intake Center will serve as the location for project activities. Funding from this program will provide access to educational services for homeless children and vouth comparable to those offered to other students. In addition, school district services to homeless children will include access to a federally-funded breakfast and lunch program, school nurses and health services, school psychological and

Nov. 20th (Mon)

of Alcoholics

Support Group

The Scrabble Club

Games & Social

798-6877

454-0620

735-5544

Workshop

732-3131

457-0234

5:30p

6p

7 p

6:30p

7:30p

7:30p

7:30p

New Hope Adult Children

Sharon Meriwether 641-8605

Monday Niters Toastmasters

Eating Disorder Support Grp.

Adjustment Support Group

Pete Savage 873-2739

William Soyer 642-3871

Divorced & Widowed

B-Sharps of Las Vegas

North LV Host Lions

364-1111 ext. 201

Barbara 458-4167

Drama Workshop

Families Anonymous

Joe Behar's Community

American Cancer Society

counseling services, "Operation School Bell" (clothing and personal items), and transportation. Whether the obstacle is clothes, immunization records, whatever, someone at our schools will go the extra mile!

Like it or not, we're part of a system that has chewed these folks up and spit them out. We're part of that system, but we can be catalysts for change.

If you know of a homeless child that needs to be enrolled in school, please contact lerome Herrmann of the Pupil Personnel Services Department, Clark County School District, at 799-8636. LINK

Nov. 21st (Tue)

7:30a Paradise Valley Lions Club Jerry Moleton 731-5511

7:30a **Business Development Club** Bonnie Potter 454-3818

Silver Advantage Network 8 a UMC Chptr Walking Program 383-2095

Las Vegas Host Lions

Charleen Lewis 453-4958 LV Luncheon Optimist Club 12n

Randy Clark 876-0239 Gashouse Gang Toastmasters 12n

Crayton lones 365-2009 Silver Toaster Toastmasters 12n

Maureen Skinner 365-3427 S.E. Valley Exchange Club 12n

Gale Lane 457-084 Paradise Seratoma Club 12n

387-9312 6р Swing Dance Club of LV

Henderson/Green Valley 6:30p

Lions Richard Weidman 361-4446

Actors Workshop 6:30p Lori Noble 877-6463

Las Vegas Sunrise Lions James & Jeff Cho 735-6666

6:45p Sweet Adeline Chorus of LV Janice 739-6553

Divorced & Widowed 7:30p **Adjustment Support Group** 735-5544

City of Las Vegas Film Classic-"A World Apart" 386-6383

Adult Children of **Dysfunctional Families**

UNLV Music Department 8р University Wind Ensemble 739-3801

8:30p Adult Substance Abuse Grp. 734-6070

Jazz at the Hob Nob 10p 734-2426

Community Tennis Tourney

he annual III Gaynor Community Tennis Championships will be held this year at the Green Valley Athletic Club, Oct. 30-Nov. 5.

playing high school seniors.

The tournament, sanctioned

The competition, which features match play, daily raffles and a Saturday play day for area junior players, is a scholarship fundraiser for local tennis-

by the Nevada Tennis Association and the United States Tennis Association, is open to all area players.

Video Tyme and the Green Valley Athletic Club are co-sponsors of the event. **Applications**

are available at all 16 local Video Tyme stores, GVAC and local tennis clubs. For further information or applications, call the NTA office at 369-0031.

Minority Affairs Council

by loe Cross

he curve has once again started an upward swing for the Las Vegas Minority Input Committee (MIC), according to spokesperson Russ Harvey. The committee, which was formed some 5 years ago, is dedicated to helping minority and women-owned businesses, as well as small businesses in general, obtain work contracts. In it's peak year, the MIC hit the \$50.5 million mark in contracts. However, according to Harvey, after that, efforts stagnated -until this year. "At a recent meeting it was reported that we should hit \$36 million this year," he said. "Our goal is to get back to that \$50.5 million." Since it was formed, the committee has helped its targeted groups capture nearly \$400 million

Nov. 22nd (Wed)

call North LV Womens Golf Assoc. 457-4159 7 a Henderson Kiwanis Club Rex Newell 564-3333 7 a The Leads Club 365-6283 or 454-6056 12n Las Vegas Exchange Club Bob Griess 734-4424 12n Las Vegas 49er Lions Charlie Brown 384-2471 12n Adult Children of Alcoholics 734-6070 2:30p Kiwanis Club of Golden K Srs. Preston Reid 645-0141 Boys Town Alumni Assoc. 5 p Don Charleboix 455-4099 5:45p I'll Drink to That Toastmasters Terri Williams 735-7403 **Bachelors & Bachelorettes Toastmasters** Mike Wilson 873-2739 7 p **Evening Optimist Club** Joe Schleef 457-0611 New Life Foundation "Success Without Stress" loan Philips 293-4444 7 p Writers Group of Nevada Workshop 453-2454 7:30p Lake Mead Parliamentary Unit - Silver Maze Unit

Helen Askew 878-9705

Pahrump Lions Club

Allan Cook 727-6561

Sundowner Lions Club

Las Vegas Jaycees

12mid Darwin's Magic Club

365-1328

Todd Stewart 457-8832

Norm Kaufman 451-1763

7:30p

7:30p

in contracts -- an impressive figure considering that, even though the committee was created under a federal law, it doesn't receive any federal funding to help its efforts.

There are 50 regional councils under the banner of the National Minority Supplier, including the Nevada Minority Purchasing Council. MIC is part of that state organization. "Last year alone, the national council obtained contracts for \$11.9 billion for minority and women-owned businesses," Harvey said.

The Las Vegas committee, however, took the job a step further by adding women-owned businesses and "regular" small businesses. "One of the reasons we expanded to women and small businesses was because (the information going to minority businesses) was equally pertinent to women and small businesses," Harvey said. He added that contracts for women's businesses ac-

Nov. 23rd (Thur)

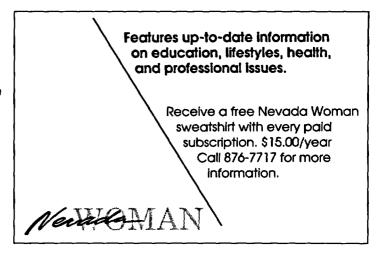
Boulder City Elks BPOE Thanksgiving for Seniors 293-2457

Dula Community Center Thanksgiving Dinner 386-6454

Nov. 24th (Fri)

7:30a Valley Voices & Vices **Toastmasters** Lorri Jackson 457-0884 11:30a Public Relations Soc. of Amer. - Desert Sands Chptr Rick Dale 791-2377 High Noon Lecture Tstmstrs 12n Donna Milcarek 362-2632 Allied Arts Gallery Exhibit Works by Charleen Gagliardi (thru Nov. 14) 731-5419 New Life Foundation "Success Without Stress" Joan Philips 293-4444 7:30p CCCC Planetarium "First Light & Arctic Lights'

643-6060 ext. 335



counted for \$17 million of this year's \$36 million.

The national council came about "during the (President Jimmy) Carter years," Harvey said. "Congress was getting set to pass a bill that said minority and small businesses had to get a certain percentage of federal business. All the big companies flew people (to Washington) to lobby against making the proposal law."

As a result, Harvey said, Congress "was talked into" developing the council instead so it could "show that needs were being filled" without making it into law. "The (Las Vegas) Minority Input Committee

was formed from that," he said.

The committee is comprised of some of Southern Nevada's leading businesses and representatives of the "target groups." Harvey said the committee is "always looking" for new members for the council.

"The (committee's) operating system is simple," he said. "They (businesses) pledge to give more business (to the target groups)." The committee members also help develop the corporate membership end of their organization.

Anyone wanting more information on the Minority Input Committee should call 648-6488. LINK

Nevada Opera Theatre Rings In New Season With Style

evada Opera Theatre will usher in a new season with its annual, black-tie Opera Gala on November 30 at the Desert Inn. The event will begin at 6:45 p.m. and will feature special selections from the company's artists, orchestra and chorus.

Organization officials hope that the reception given the season opener, "Phantom of the Opera," forecasts a successful season to come. Performances of "Phantom," scheduled for December 2 and 3, have been sold out

since September.

Next on the season's schedule is "Backstage at the Opera" on February 17 and "La Traviata" on February 18. "Backstage" will be on June 2, followed by "Carmen" on June 3. Tickets for "Backstage" will be on sale for \$100. Tickets for "Carmen" and "La Traviata" are priced at \$10, \$15, \$25 and \$50.

The theatre will also present a special holiday performance of "Amahl and the Night Visitors" December 15-23.

For further information, call 451-6331. LINK

Facing Mortality: Nathan Adelson Hospice

by Marianne Davidson

raditionally, health care services have stressed well-being and recovery in order to return a patient to normal life. Unfortunately, there comes a time when all of us must deal with mortality -- our own or a loved one's.

Which is where the hospice program comes into play -- helping individuals and families cope with the reality of a lifelimiting illness.

The Nathan Adelson Hospice was conceived in 1979 after Adelson, founder and administrator of Sunrise Hospital, died of cancer. The goal of hospice programs, such as the Nathan Adelson Hospice, is to provide patient and family with as much quality time as possible.

Unlike most hospices in

the nation, Nathan Adelson is one of only a dozen or so programs that has its own free-standing facility for inpatient care, as well as the traditional full, home care programs.

The Nathan Adelson hospice facility can provide for 20 patient/families in a warm home-like surrounding. Although home-like in appearance, the facility is designed and equipped to treat and control pain and symptoms that can't be controlled at home.

In addition to the patient care facilities, the building houses living rooms and kitchen facilities for every patient, a coffee shop, a non-denominational chapel, a large courtyard as well as an indoor aviary.

Like all hospice programs, the Nathan Adelson staff

consists of a highly dedicated group of professional and lay personnel who, in addition to their specific professions, are trained extensively in "thanatology," the study of death and dying. Through an ongoing assessment and intermittent home visits, teams composed of these professionals

and of specially trained volunteers, closely monitor the emotional growth of the patient and family during this life transition.

Regardless of the disease, the patient and family's plan of care is individualized to maximize the time and resources available to them.

Auxiliary Plan "Light Up A Life"

The Butterfly Auxiliary of the Nathan Adelson Hospice Foundation will conduct its annual "Light Up a Life" ceremony at the Boulevard Mall on November

Celebrity spokesperson Mary Ruth Carleton will host the event and will light the first light on the tree. The ceremony will be held at 1:00 p.m.

The Butterfly Auxiliary provides the hospice foundation with support functions such as developing and executing fundraisers throughout the year. Some of the auxiliary's activities in the past have included selling holiday greeting cards and tickets for benefit play performances, and conducting the annual "Light Up a Life."

For more information about volunteering for "Light Up a Life" or about the Nathan Adelson Hospice Program, call 733-0320.

Nov. 25th (Sat)

Boulder City Chamber call of Commerce Annual Christmas Tree Lighting 293-2034 9 a New Life Foundation "Success Without Stress"

Joan Philips 293-4444 Nathan Adelson Hospice 1 p "Light Up a Life" 733-0320

High School Football 1 p Championship Playoffs 799-5456

1:30p Las Vegas Today Filming Sandy Zimmerman 731-6491 CCCC Planetarium

"First Flight & Arctic Lights" 7:30p 643-6060 ext.335

Nov. 26th (Sun)

call Vegas Radio Control Racing Group Remote Control On-Road Racing 644-2386 or 878-8825 Southern Nevada call Musical Arts Society "Verdi Requiem" 451-6672

New Life Foundation 9 a "Success Without Stress" Joan Philips 293-4444

Nov. 27th (Mon)

New Hope Adult call Children of Alcoholics Sharon Meriwether 641-8605 **American Cancer Society** 5:30p Support Group 798-6877 **North LV Host Lions** 6 D William Soyer 642-3871 Amer. Business Women's 6p Assoc.-North LV Chapter Yolanda West 384-3351 The Scrabble Club 6 p Games & Social 454-0620 7 p NV Small Business Dev't Ctr. "Financing for a Small Business* 739-0852 Eating Disorder Group 7 p 364-1111 ext. 201 **B-Sharps of Las Vegas** 7:30p Workshop Barbara 458-4167 7:30p Divorced & Widowed Adjustment Support Group 735-5544 7:30p Families Anonymous 732-3131 80 Joe Behar's Community Drama Workshop 457-0234

Jack Morgan Orchestra To Benefit S.T.A.R. Auxiliary

ake a trip down memory lane with Jack Morgan and the Russ Morgan Orchestra on November 29, 2:00 p.m., at the Holiday Inn Center Strip show room. Tickets can be purchased at the door for \$10.

The Russ Morgan Orchestra has over 1800 songs in its library and is the only band whose name has survived the original Swing Era. Music "in the Morgan manner" includes Russ Morgan's Gold Record recordings of "So

Tired," "Cruising Down the River," "Somebody Else is Taking My Place." "Forever and Ever" and "You're Nobody 'Til Somebody Loves You."

All proceeds from the performance will be donated to the STAR Auxiliary (Service to Aid the Retarded) of the Helen J. Stewart School.

For additional ticket information, contact Charlotte Alaimo at 451-4751. LINK



After teaching Drama Workshops for over 35 years (18 of those in Las Vegas), the question most frequently asked of me is "How do I get into the acting unions, like SAG, SEG and AFTRA?

ere are some of the more significant ways: **SCREEN ACTOR'S GUILD**

a. Type Casting - You look the part and pass the "cold-reading" audition. Now, you are cast in a SAG movie and have several lines of dialogue. You are now eligible to join SAG, thanks to a federal law call "Taft-Hartley." Since Nevada is a "right to work" state, it is not compulsory for you to join a union to work again as a professional actor. (Nevertheless, if you were in Calif., you would have to join the union to work in another film.) Las Vegas is unique: many blackjack dealers, chorus girls, bar-

tenders, valets and a myriad of other hotel workers became SAG qualified because the film needed their particular expertise during a film. Many of them never had previous dramatic training. b. Letter of Intent - A director or producer has you read for a specific part and subsequently casts you in that role. The film is not scheduled for location shooting for 6 months. That letter and the copy of the contract also makes you eligible for SAG. c. Sister Unions - If you've belonged to an allied union for a year (with at least one speaking part) you are now

YMCA Introduces **Outreach Program**

he YMCA has named Julie Abarzua to its newly created position of youth and senior outreach director.

Abarzua, who was formerly with the Recreation and Parks District in Conejo Valley, California, will coordinate the Y's new "out-of-building" program.

"It is of vital importance that we reach out to those who do not have easy access to our Meadows Lane facility, individuals who need a positive diversion away from gang affiliation and/or the means to discover more fruitful methods of enhancing their lifestyle," said Pat Ritter, the Y's vice president and operations officer.

"(Abarzua has) already won the respect of some 30 young people via the organization of games, sports and related activities," Ritter said. "New recreation programs for seniors are getting under way (through) her efforts with the local housing

New West Stages Chekhov Tribute

eligible for SAG membership.

tribute to famed writer Anton Chekhov will be presented by New West Stage Company this month.

"Chekhov -- A Night of Comedy" will be presented Nov. 17-18, 8 pm, at the Charleston Heights Arts Center, 800 S. Brush St. There will be a \$5 donation for the 8 p.m. performances.

The narration of Chekhov's "The Harmfulness of Tobacco" and "The Marriage Proposal," are scheduled.

The New West Stage Company is a non-profit theater co-sponsored by the City of Las Vegas and is funded in part through grants.

For further information LINK call 876-6972.

authority."

"Future plans," noted Ritter, "include expanding youth programs into neighborhoods where programs and transportation are not available." LINK

SCREEN EXTRAS GUILD (SEG)

Have one of the local agencies that is SEG affiliated sponsor you; that's all there is to it. Naturally, there is an initiation fee and semi-annual dues, as with any other union. The better agencies make sure you are serious about becoming a SEG member.

Being in the union has tremendous benefits. upside is that the pay is excellent and you're protected by contracts. and retirement benefits (if you qualify) are as good as private industry's. Last year I was in Hawaii doing a film called "Fists more income that year than of Steel" under a SEG contract and I was extremely impressed with all the benefits of the union. The downside is that since Nevada is a right-to-work state, many film projects come to town that are non-union, or very restricted to union, or what is more paradoxical, have a "waiver" from the union which

basically pays non-union wages. But that is another story for another column.

AMERICAN FEDERATION OF TELEVISION AND RADIO ARTISTS (AFTRA)

More often than not, you are "Taft-Hartley'd" into AFTRA on your first TV assignment. What's really good about this union is that they take membership fees each time you work, rather than all at once. Several years ago I Their medical, dental was a principal actor in the "Joan Rivers Special" and the "Garry Shandling Special" which gave me SAG and SEG combined. So please, don't dismiss the importance of AFTRA. With the emergence of cable, AFTRA could develop into a very attractive union.

Any questions? Please call me at 457-0234. LINK

Nov. 28th (Tue)

Silver Advantage Network UMC Chptr Walking Program 383-2095 Las Vegas Host Lions 12n

Charleen Lewis 453-4958 LV Luncheon Optimists

Randy Clark 876-0239

Gashouse Gang Tstmstrs Crayton Jones 365-2009

Paradise Seratoma Club 12n 387-9312

Jewish Women's Business & Professional Event "Trusts & Investments" 732-0556

Swing Dance Club of LV 736-2216

6:30p Actors Workshop Lori Noble 877-6463

6:30p LV Executive Lions Club Charles Sorrells 385-3703

6:45p Sweet Adeline Chorus of LV Janice 739-6553

Big Brothers/Big Sisters Volunteer Orientation 739-7818

7:30p Divorced & Widowed **Adjustment Support Group** 735-5544

7:30p Adult Children of **Dysfunctional Families** 382-9939

8:30p Adult Substance Abuse Grp 734-6070 Jazz at the Hob Nob 734-2426

Nov. 29th (Wed)

call North LV Womens Golf Assoc. 457-4159 7 a The Leads Club

365-6283 or 454-6056 7 a Henderson Kiwanis Club

Rex Newell 564-3333 12n Las Vegas Exchange Club Bob Griess 734-4424

12n **Adult Children of Alcoholics** 734-6070

12n Las Vegas 49er Lions Charlie Brown 384-2471

S.T.A.R. Auxiliary 2p Russ Morgan Orchestra Charlotte 451-4751

2:30p Kiwanis Club of Golden K Srs Preston Reid 645-0141

5:45p **Bachelors & Bachelorettes** Toastmasters

Mike Wilson 873-2739 7 p **Evening Optimist Club** Joe Schleef 457-0611

Boulder City Lions 7 p Robert Klein 293-2656

7р New Life Foundation "Success Without Stress" Joan Philips 293-4444

7 p Writer's Group of Nevada Workshop 453-2454

7:30p City of Las Vegas Film Classic-"Seven Days in May" 386-6383

Las Vegas Jaycees 8р Todd Stewart 457-8832

12mid Darwin's Magic Club 365-1328

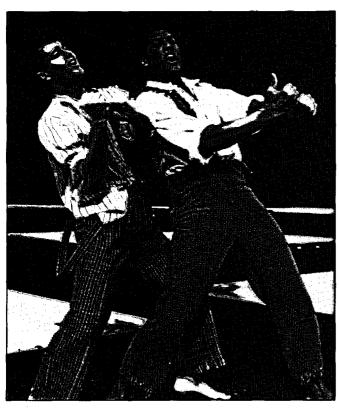
BYU Talent In Las Vegas

t's hand-clapping, foot stomping time as Brigham Young University's Young Ambassadors perform their musical revue November 3 at 8 p.m.

In this fast-paced musical show, the cast will transport the audience from Cash-

man Field Theatre to P.T. Barnum's Circus, the Broadway smash hit, "Cats," and to the Grand Ol' Opry.

Tickets are on sale now at Reed Whipple Cultural Center. For more information call 386-6211.



Ron Paul and lason Rasmussen of the Brigham Young University Young Ambassadors row down the mighty Mississippi as they sing "Muddy Water," from the hit musical "Big River."

Int'l Artists Exhibit In Public Places

rt for Public Spaces will continue its exhibition through Nov. 9 at the Charleston Heights Arts Center Gallery.

The Las Vegas Arts Commission is conducting a competition to select sitegenerated artwork for Las Vegas City Hall. Five artists, Vito Acconci, Alice Aycock, Christopher Janney, Edward

Levine and William J. Maxwell were invited to create three-dimensional models of their concepts for this project.

The models from these internationally-acclaimed artists will be on exhibit at the Reed Whipple Cultural Center Nov. 15 and moved to Centel Dec. 4. For details call 386-6211. [IINK]



The people of Centel work to provide more than just good telephone communication services for our community.

Our people give countless hours of service to organizations and causes that benefit us all.

They're connecting with the community.

Our people. Your friends.

Connecting with the Community. The People of Centel.



Where people connect

Nov. 30th (Thur)

call	UNLY Theatre "Love's Labour's Lost"	5:45p	I'll Drink to That Toastmasters Terri Williams 735-7403	
	(thru Dec. 10) 739-3801	6p	CCC Planetarium "First Flight & Arctic Lights"	
7 a	Las Vegas Breakfaster Lions Mark Trinko 453-4958	7 p	643-6060 ext. 335 Sunset Symphony Orchestra	
8 a	Silver Advantage Network UMC Chptr Walking Program 383-2095	7:30p	Concert 386-6383 Phobic Support & Assistance	
12n	West Charleston Lions Dick Grilz 362-8295	8р	Peggy 364-1111 Henderson Parks & Rec.	
12n	Uptown Kiwanis Club Sam Head 455-3530		Personal Money Management Seminar	
12n	Las Vegas Civitan Club 565-5905	10p	565-2121 or 435-3814 lazz at the Hob Nob	
5:30p	Tall Singles Club		734-2426	



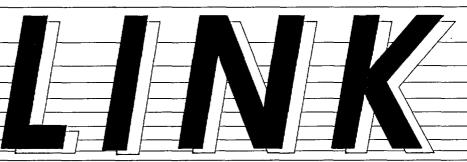
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SOUTHERN NEVADA



October 1989

a community resource publication

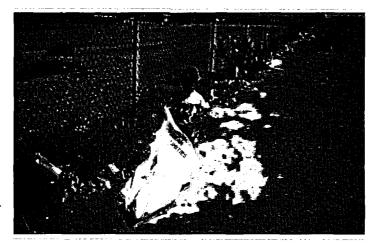
SNCC Slashes Trash With Powerful New Programs

anet Narduzzi has the ability to remove tons of neighborhood trash by sitting in someone's living room.

As executive director of Southern Nevada Clean Communities, Narduzzi has introduced communityinitiated clean-up campaigns striking directly at one of the main reasons for littering -- litter bugs feel no sense of ownership. In addition to promoting its yearly clean-up projects at Lake Mead, Mount Charleston and Red Rock Canyon, SNCC will encourage "do-it-yourself" litter removal projects as well.

With guidance, materials and/or publicity from SNCC, any small group can quickly of 10 people interested in become a powerful force for cleaner, more attractive communities. In early May, Narduzzi met with a group

cleaning up the Warm Springs/Industrial Road area. By June 17, the group had ballooned into 60 volunteers



who cleared a whopping 2.5 tons of trash from three miles of their target area.

Narduzzi feels that educating young people about the hazards of litter is key to developing an antilitter mentality. SNCC is using a grant from the State of Nevada to develop a series of educational videotapes about littering, recycling and energy conservation that will be used in our Clark County School District's elementary schools.

SNCC's effectiveness has not gone unnoticed by the Keep America Beautiful system with which it is

Please see 'SNCC,' Page 11

Salvation Army Wins National Award by Joe Cross

he Las Vegas Salvation Army's Adult Rehabilitation Program, which has shown an amazing recovery rate, was honored recently as winner of a national award for Outstanding Social Services. Major Jim Sullivan, who has headed the Las Vegas operations for nearly seven years, was presented with the award during the

Army's National Social Services Conference in St. Louis. "How thrilled I was when the announcement was made," said Sullivan. "They (the other entries) were all excellent programs."

The Salvation Army is broken into "territories" with four in the United States. Canada, also a territory, was included in the judging. Competing for the honor with Las Vegas were programs in Cincinnati, St. Louis, San Antonio and Vancouver.

The Las Vegas program offers residential treatment services for chemical abusers and those with other treatable handicaps. Within it are several recovery programs ranging

Please see 'Army,' Page 11

WHAT'S INSIDE

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	High	on	Life	
--	------	----	------	--

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The Southern Nevada Link October 1989 Volume 1, Issue 1

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The Southern Nevada Link 3370 Pinks Place, Suite #F Las Vegas, NV 89102 (702)368-1588

Editor's message

Thank You!

ow that the Link's Introductory issue has made its debut, I wanted to take a moment to share my sincere thanks for the many kind thoughts and rave reviews it has received.

After the printing and distribution of the first issue, I began to do a bit of homework on this new endeavor known as publishing. What I learned is that those favorable reactions to the *Link* are truly turning into a visible reminder of its success.

In just one month's time, the publication has acquired 45 subscribers and seven paid advertisers. In the publishing world, I'm told, for a brand new publication, numbers like these are far above average -- and have proven to be an inspiration to all those individuals who give so much of themselves to the Link.

Demand for the publication has surpassed any expectations I may have had. Of the 5,000 copies printed August 1, nearly all were gone by August 15. I'm pleased to announce that the printing of this issue has doubled to 10,000.

The City of Las Vegas Cultural Affairs Division offered their eight locations for distribution points. Two weeks later the Las Vegas-Clark County Library District graciously said "yes" to making the Link available to the public in each library within the system. Also, many of the organizations I've met over the past month will be distributing the Link to their membership.

Link to their membership.

Although there is still a ways to go, the Link has certainly gotten off to a great start. Thanks again to the writers, editors, advisors, and word processing and graphics people who have made the Link what it is -- a mirror of the community. Thanks also for the warm reception -- we've been basking in it all month!

Editor's Note: "Link Letters" will be a monthly feature, consisting of letters received by the Link ... "Link Letters" should not be confused with members of Art's family.

LINK LETTERS

"Congratulations! Your first Link is terrific."

Valerie Wiener Las Vegas

Oct. 1st (Sun)

call Boulder City Art Guild Library Art Show (thru Oct.31) 293-2138

call University Theatre
"Celebration" (thru Oct. 8)
739-3535

call 8th Annual Basque Festival 384-4007

call Radio Control Racing Group Remote Control Off-Road Racing 644-2386 or 878-8825

call Baker Park Comm. School
Bocce League Begins
Marilyn Louden 733-6599

12n Catholic Community Services Family Festival 385-2662

4:30p Las Vegas Symphony Picnic Pops Concert 739-3420

6p March of Dimes Annual Bar-B-Que 734-1232

There are several exhibits premiering October 1st. Please refer to Network

"A thank you for your ad placement regarding the Community Drama Workshop.

CDW has been in Las Vegas for over 17 years and we have had ads on T.V., newspapers, radio and a variety of weeklies and monthlies, nevertheless, we've never had the response that we received from our small ad in the Link."

Joe Behar Las Vegas

"Southern Nevada Link is the greatest publication to come out in this valley in a very long time!

Keep up the good work!"

Candice Nichols Las Vegas

"At last! A great source of what's going on. The Link really serves a necessary network for folks involved in living."

Juneve Damus Las Vegas "P.S. - Your new publication is great!"

Juvenile Diabetes Foundation Las Vegas

"I would like to thank you for coming up with such a wonderful idea. There is so much going on in this city that people are not aware of, this publication is perfect."

Sandy Windom Las Vegas

"On behalf of the Nevada Guitar Society, let me offer you my sincere congratulations for the superb publication you publish."

Malena Burnett Las Vegas

"Looking forward to future copies of this great publication."

Doris Bondy Las Vegas



... combining the very best in people with the ideas, events and resources of the community ... subscribe today ... refer to page 12 for details ...

Directory Targets Youth

uoyed by an overwhelming response to its first effort. Nevada Business Services (NBS) is preparing to publish a second Youth Service Referral Directory.

The new directory, a joint effort with the Nevada Department of Human Resources, is scheduled for completion by the end of October. It will include over 200 listings of youth services available locally.

NBS officials said the directory will include such categories as crisis intervention, day care, education, financial aid and scholarships, employment, recreation, health and many other topics of concern to youth and those who work with them.

"We have even researched and included apartment complexes which will allow 18-year-olds

to sign a lease," said Bob Horton, the NBS Youth Services Coordinator. According to Horton, reaction to the first catalog was excellent and the second edition will be more extensive.

The need for such a publication was obvious. "There's never been a lack of (youth) programs -- in fact it's amazing how many services there are out there," he said. "But there has been a lack of communication and people sometimes don't know an organization they could use exists.'

Horton said they plan to print 1,000 directories and charge \$10 each. To order a copy, write Nevada Business Services, 922 East Owens, Las Vegas, NV 89106. For further information, Bob Horton may be reached at 647-3218. LINK

WIC Media Awards to Benefit Scholarship

he Electronic Media Awards should be quite entertaining for Women in Communications (WIC), October 20, at the Shark Club. The 5:30 p.m. event will reveal the results of competition in 54 categories.

Jan Laverty Jones and Vince Manfredi will co-host the show in which all entries will be judged by communication professors from Northern Arizona University. "There can't be any favoritism by the judges when they don't have a relationship to our market," said Julie Neil, co-organizer for the event. The entries will be judged on originality, creativity, and professionalism in the field.

All entries must have aired between September 16, 1988, and September 15, 1989. Entrants pay a \$10 fee and all proceeds will benefit the WIC scholarship fund at

the University of Nevada-Las Vegas.

WIC is a unique organization that encompasses all segments of the communications field, from education through the different mediums, including advertising to public relations.

It keeps members abreast of the changes in the fast-paced industry, while developing liaisons with other women in other communication groups.

For additional information on Women in Communications, contact Sidra Kain at 794-0405. LINK

Oct. 3 (Tue)

- S.E. Valley Exchange Club Gale Lane 457-0884
- 7:30a Paradise Valley Lions Club Jerry Moleton 731-5511
- 12n Las Vegas Host Lions Charleen Lewis 453-4958
- LV Luncheon Optimist Club Randy Clark 876-0239
- 12n Gashouse Gang Tstmstrs Crayton Jones 365-2009
- 12n Silver Toasters Tstmstrs
- Maureen Skinner 365-3427 Paradise Seratoma Club
- 387-9312 Clark County Library 5 p
- Gallery Opening/Reception 733-7810 Swing Dance Club of LV
- 736-2216
- 6 p Clark County Park Rangers 'Babysitting Class' 455-7517
- 6:30p Henderson/Green Valley Lions
- Richard Weidman 361-4446 6:30p Las Vegas Sunrise Lions James & Jeff Cho 735-6666
- 6:30p Lake Mead Parliamentary Unit - Lake Mead Unit Helen Askew 878-9705
- 7:30p British Commonwealth Club Barry Anderson 438-2439
- 7:30p Clark County Gem & Mineral Society
- Maureen 452-9306 7:30p Mobile Homeowners League of the Silver State 384-8428
- 7:30p Divorce & Widowed **Adjustment Support Group** 735-5544
- 7:30p Adult Children of **Dysfunctional Families** 382-9939
- 8р Nevada Guitar Society Spanish Music Performance 798-8077
- Jazz at the Hob Nob 734-2426



Oct. 2nd (Mon)

- 5:30p American Cancer Society Support Group 798-6877
- Monday Niters Toastmasters 6 p Pete Savage 873-2739
- The Scrabble Club Games & Social 454-0620
- The Domestic Crisis Shelter 'Take Back the Night' March 646-4981
- 6:30p North Las Vegas Host Lions William Soyer 642-3871
- 7 p Opti-Mrs. Club of Las Vegas Yolanda West 384-3351
- Laughlin Lions Club 7 p George Hopkins 298-0620
- Green Valley Library Making Haunted Houses 435-1840
- **Eating Disorder Support Grp** 7 p 364-1111 ext. 201
- NV Small Business Dev't. Ctr. 'Overview of Small Business' 739-0852
- 7:30p Divorced & Widowed **Adjustment Support Group** 735-5544
- 7:30p B-Sharps of Las Vegas Workshop Barbara 458-4167
- 7:30p Families Anonymous Support Group 732-3131
- Joe Behar 8р Community Drama Wrkshp 457-0234

Task Force to Provide Nevadans Facts on **Nuclear Waste**

by Charlotte Alaimo

ave you ever wondered how the State of Nevada was chosen to have the first underground nuclear waste repository? Or, how long could the waste be stored there safely before the site itself becomes radioactive?

These questions and others you might want to ask Judy Treichel, executive director of the Nevada Nuclear Waste Task Force. This Task Force is not an advocate group, but rather an information source available to organizations and companies.

"We respond to requests to set up forums," said Treichel, "or send out public speakers.

When the Nuclear Waste Policy Act was passed in 1982, it established two sites would be chosen for underground repositories-one each, in the East and the West. A month after the act became law and before any scientific information was gathered or studies conducted, the site screening had narrowed down to Nevada, Texas, Washington, Louisiana, Mississippi and Utah.

"Because of the outcry, the east site was abandoned," Treichel said, "even though 95 percent of the nuclear waste is generated east of the Mississippi River and the bulk of that is on the east coast."

By 1986, the Department of Energy had arbitrarily narrowed the field down to Nevada, Texas and Washington. In December 1987, Congress passed a measure that terminated all site

the repository would be safe for 10,000 years from the air, ground and water pollution. By that time, hopefully technology will be able to deal with the problem of containment, since that time limit doesn't even equal the half-life of plutonium.

Prototypes for casks to store nuclear waste have not been approved yet. It is of the nation. "Yucca Mountain itself is an old volcano," Treichel said. "There are younger volcanic cones nearby." The Environmental Assessment support document suggests a possible volcanic eruption.

According to the Nevada Nuclear Waste Project Office, "a national laboratory identified Crater Flat. immediately adjacent to Yucca Mountain, as a potential hot rock geothermal area. This would suggest the presence of magma (molten rock)."

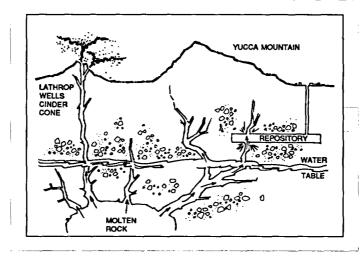
"The site sits over a major aguifer," said Triechel, "which may be a future source of water supply for Southern Nevada. Also, the area is unstable as far as possible earthquakes are concerned," she added.

Nevada has two animals on the endandered species list, the desert tortoise and the pup fish, which may hamper the process for site selection. The pup fish is located in Devil's Hole in Ash Meadows. "The park service wants assurances the pup fish will survive," Treichel said.

The Nevada Test Site and Yucca Mountain are so close in proximity that continued underground nuclear testing could have an adverse effect on the nuclear waste repository. Following an underground nuclear test in February 1984, a 9,000 square foot section of desert caved in and left 30 foot deep sink holes.

By law, the repository would be built to hold 75,000 metric tons of high level nuclear waste of which an estimated 75 percent would be reactor waste and 25 percent military waste. "By 1995, the nation will have accumulated 35,000 metric tons ready for storage," Treichel said. "Two thousand metric tons of nuclear waste are being generated every Yucca Mountain, year now. at the very earliest couldn't be ready by the year 2003. It is projected that by 2010, the repository will be filled.

Please see 'Task Force,' Page 10



selection work in Texas and Washington, thus leaving Nevada for the home of the first nuclear waste repository.

The focus turned to Yucca Mountain and several studies have been conducted to determine if also undecided if the casks would be embedded in concrete or lead before being placed in a repository.

Yucca Mountain has some major problems which should make it unsuitable to be the underground nuclear waste repository

Oct. 4th (Wed)

- call 457-4159
- 7 a The Leads Club 365-6283 or 454-6056
- 7 a Henderson Kiwanis Club Rex Newell 564-3333
- 7:30a Casino Center Optimist Club Cal Calhoun 646-4554
- 10a Clark County Library Library Tour 733-7810
- 10:30a West Las Vegas Library lazz for Children 646-2117
- 12n Las Vegas Exchange Club Bob Griess 734-4424
- Las Vegas 49ers Lions Club Charlie Brown 384-2471
- 2:30p Kiwanis Club of Golden K Srs. Preston Reid 645-0141
- 5:30p Nevada Executive Women Network Meeting 795-1965

- North LV Women's Golf Assoc 5:45p Bachelors & Bachelorettes **Toastmasters** Mike Wilson 873-2739
 - 6:30p Amer. Business Women's Assoc.-Vegas Stars Chapter Leona Doll 295-0501
 - Writers Group of Nevada Workshop 453-2454
 - Clark County Library 7 p 'The Divorce Experience' Pt 1 733-7810
 - Evening Optimist Club Hai Floyd 295-1943 7 p
 - 7:30p Sundowner Lions Club Norm Kaufman 451-1763
 - 7:30p Astronomical Soc. of So. NV Lonnie Hammargren 451-8444
 - 7:30p Pahrump Lions Club Allan Cook 727-6561
 - Las Vegas Jaycees Todd Stewart 457-8832

Oct. 5th (Thu)

7 a LV Breakfaster Lions Mark Trinko 453-4958 Uptown Kiwanis Club

12n Rick Golightly 456-1606

West Charleston Lions 12n Dick Grilz 362-8295 Las Vegas Civitan Club 12n 565-5905

12:15p Las Vegas Optimist Club Ed Ferris 870-6470

5:30p Tall Singles Club 453-2681

5:45p I'll Drink to That Toastmasters Terri Williams 386-6201

Christian Toastmasters Charles Neil 799-6830

Phobic Support & Assistance 7:30p 364-1111

Symphonic 'Hoedown'

he Symphony goes Country on Sunday, October 1, as the Las Vegas Symphony presents its Fourth Annual Picnic Pops Concert on the UNLV campus.

The program will feature a broad variety of country music including favorite western TV and movie themes, bluegrass and other country classics arranged for symphony orchestra.

Guest artist Jana Jae will fiddle such favorite tunes as "Hot Canary" and "Orange Blossom Special."

Special entertainment and activities for children will precede the program. The country flavor will also spill over into the Second Annual Picnic Basket Contest -- the grand prize is a trip to the Grand Ole Opry in Nashville.

For information on tickets or the picnic basket contest, call the Symphony office at 739-4320. LINK

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MAGAZINE IN OCTOBER

Featuring

ELAINE WYNN

For Advertising Information and Subscriptions 876-7717

Another First In Southern Nevada ... A Columbus Day Parade

olumbus Day will take on a new -- and festive look -- in Las Vegas this year with the first-ever parade honoring the explorer.

Staged by a combined effort on the part of all seven Italian-American organizations in Southern Nevada, the Oct. 14 event will step off at noon in downtown Las Vegas. It will be followed by a block party, also downtown.

"This is going to be an exciting event and we've had great response, not only from the various Italian-American groups, but also the community in general," said Charlie Cocuzza, cochairman of the event. The other chairman is Dino R. Sorrentino.

"We will be highlighting our diversified backgrounds with colorful costumed dancers and musicians representing the Italian and American nations," Sorrentino said. "Many groups will be coming in from outlying areas of the state to represent America's mosaic."

In addition to the parade and block party, which is scheduled to run until 8 p.m., a Queen Isabella contest is also slated.

The seven sponsoring

organizations are the Augustus Society, Italian American Sports Hall of Fame, Sons of Italy, Nevada Society of Italian American Lawyers, Italian American Club, Italian Catholic Federation - St. Ann's, Italian Catholic Federation, and St. Francis de

Parade officials said the parade is the first local step toward involvement in the worldwide celebration in 1992 of the 500th anniversary of Columbus's discovery of the "New World."

The parade, officials stressed, "will be an All-American event with floats, cold air balloons, marching bands, VIPs, politicians, clubs, organizations, businesses, and prominent casinos.'

'Several casinos have said they will be entering floats while others have offered us their facilities for holding such events as the Oueen Isabella contest -which will be held at the Tropicana -- or they are buying ads in our program," Cocuzzo said. "We're looking forward to a funfilled day."

For further information, call 732-4900. **LINK**

Nevada Guitar Society

he Nevada Guitar Society, a non-profit organization dedicated to promoting cultural guitar presentations, will sponsor a spectacular event of Spanish Music and Dance, on October 3. The lavish event will be held at UNLV's Artemus Ham Concert Hall at 8 p.m.

With performances ranging from traditional classical to the festive flamenco to folklore and interpretations of authentic Spanish repertoire, the

evening promises to be hugely entertaining.

Tickets can be purchased at the Artemus Ham Hall box office. In addition, tickets for a postconcert cocktail reception with performers (includes special seating) are also available.

The Nevada Guitar Society invites all residents of the community to enjoy this outstanding event. Call 798-8077 for further information. [LINK]

Oct. 6th (Fri)

call HCA Montevista Hospital 'Developing Capable Youth' 364-1111 ext. 101

Mirabelli Community Center Breakfast Hunt Sue Bartling 386-6359

7:30a Valley Voices & Vices **Toastmasters** Lorri Jackson 435-7678

11:30a LV Chamber of Commerce Salute to Secretaries Lnchn 457-8845

7:30p B-Sharps of Las Vegas Dance 458-4167

7:30p City of Las Vegas Film Series - 'Casablanca' 386-6383

Actors Repertory Theatre 'Antigoneⁱ 733-7810

Oct. 7th (Sat)

Big Brothers/Big Sisters Over the Line Promotion (Thru Oct. 8) 739-7818

Nevada State Museum Photos by Ansel Adams (Thru Nov. 26) 486-5205

7:30a LV Open Professional Over-The-Line Tournament (Thru Oct. 8) 456-1574

Boulder City Hospital Aux. 27th Annual Art in the Park 293-2034

10:30a Clark County Library Children's Film Festival 733-7810

1:30p Las Vegas Today Show Filming Sandy Zimmerman 731-6491

1:30p Rainbow Library 'Baseball Mania' 645-7500

2p & Actors Repertory Theatre 8p

'Antigone' 733-7810

6:30p Nevada Opera Theatre 'Phantasies of the Opera' 451-6331

UNLY Rebel Football UNLV hosts Pacific 739-3900

Town Hall Meetings

he town hall meeting is a concept which has fallen by the wayside as cities have grown and lifestyles have changed. We have become a society which keeps it's citizens informed through the media. Although this medium of communication serves to get information to the people, it does not provide a vehicle for the people to respond and be heard.

Junior League of Las Vegas and United Way, in an effort to provide a forum for two-way communi-cation, will hold the first in a series of Town Hall Meetings at Artemus Ham Hall on the UNLV campus on October 25, at 7 p.m. Mary Ruth Carlton of Channel 8 will be moderating a discussion on "My Land -- Your Water." Panelists will include

Oct. 8th (Sun)

- call Vegas Radio Control Racing Group
 Remote Control
 On-Road Racing 644-2386 or 878-8825
- Boulder City Hospital Aux. 27th Annual Art in the Park 293-2034
- City of Las Vegas Las Vegas Civic Orchestra 386-6211

Mayor Ron Lurie, County Manager Pat Shalmy, Lakes Developer Richard Bonar, Robert Kaufman of Aqua Vision and David Sanchez of the Green Valley Town Board.

If you are concerned about the water supply in Las Vegas, take advantage of this opportunity to learn or to be heard.

For further information, contact Jackque Matthews at 798-4636, or Mona Goshen at 871-9288. LINK

Oct. 9th (Mon)

- 5:30p American Cancer Society Support Group 798-6877
- The Scrabble Club Games & Social 454-0620
- 6:30p North LV Host Lions William Soyer 642-3871
- 6:45p Goalsetters Toastmasters Mary Goodwin 646-1932
- NV Small Business Dev't Ctr. 'Marketing Strategies - Pt 1 739-0852
- **Eating Disorder Support Grp** 364-1111 ext. 201

Oct. 9th (Cont.)

- 7 p Green Valley Library Green Thumb Gardening Series 435-1840
- Cactus & Succulent Soc. 7:30p Walter Balke 459-4667
- 7:30p **B-Sharps of Las Vegas** Workshop Barbara 458-4167 Divorced & Widowed
- 7:30p Adjustment Support Grp. 735-5544
- Families Anonymous Support Group 732-3131
- Joe Behar Community Drama Wrkshp 457-0234

Deadlines for submitting information to the Link are:

September 30 for November issue, October 30 for December issue, November 30 for January issue, December 30 for February issue ... Questions? ... Call us ... 368-1588.

Master Series Prepares 14th Season Premier

he 14th annual Charles Vanda Master Series at UNLV takes on an international flavor this year. It opens with one of the finest regional orchestras in existence, the New Mexico Symphony Orchestra, which performs October 26.

Under the leadership of music director Neal Stulberg, the NMSA has earned a reputation as a progressive and dynamic orchestra.

The New Mexico orchestra received ASCAP's award for "Adventuresome

Programming of Contemporary Music" in 1976-77 and again the next year -the only time any group has won it back to back.

Stulberg joined it in 1985 and, three years later, was a recipient of this country's most honored conducting prize, the Seaver/NEW Conductor's Award, highlighting him as one of the most promising young conductors in the USA.

Other groups scheduled to be featured in the prestigious series are the Hanover Band on November 3; Vienna Choir Boys, November 16; BalletMet on January 25, 1990; the English String Orchestra, February 7;

series are currently on sale. They may be purchased by phone or at the series box office located in the UNLV



The New Mexico Symphony Orchestra, under the direction of award-winning conductor, Neal Stulberg, will perform October 26. As the season premier, this concert marks the start of a 14th season for the prestigious Charles Vanda Master Series.

CALENDAR

QUESTIONS & ANSWERS

How can I have my organization's events listed in the Community Calendar?

Simple ... call the LINK at 368-1588.

Are there limitations?

The only rule is that each event or function be open to anyone from our community who is interested in attending.

the Pilobolus Dance Theatre. March 15; the 121-member Orchestre der Beethovenhalle Bonn on March 26; and the Radio Symphony Orchestra of Berlin on May 7. 739-3801. LINK Season tickets for the

Performing Arts Center, Mon. through Fri. from 10 a.m. to 6 p.m., or between 10 a.m. and 4 p.m. Sat. For more information call

Youth Development Workshop

eveloping Capable Young People," one in a series of workshops for the family offered by HCA Montevista Hospital, will be held October 6.

The keynote speaker, H. Stephen Glenn, is an internationally acclaimed

Development.

The all day workshop will teach early identification of risk factors which contribute to teenage alcohol and drug abuse, pregnancy and suicide.

Participants will also learn how to enhance self-

Stephen Glenn is a consultant on training, education, alcoholism and drug abuse to agencies throughout the United States. Glenn has written more than 100 papers, articles, books and courses, and has produced several television and film programs. He is the primary author of "Raising Self Reliant Children in a Self-Indulgent World" and author of the training series, "Developing Capable People, You've Got To Be Kid-ding."



family psychologist. Glenn has been involved with the Congressional Select Committee on Children, Youth and Families and has served as Director of the National Drug Abuse Center for Training and Resource

esteem, communicate openly, facilitate decision making and encourage responsibility.

For further information, call Montevista Hospital, 364-1111, Ext. 101. **LINK**

Oct. 10th (Tue)

- 7 a S.E. Valley Exchange Club Gale Lane 457-0884
- 7:30a LV Chamber of Commerce Business A.M. Breakfast 457-8845
- 9 a Receptive Operators Assoc.

 Monthly Meeting

 Karren Smith 382-7190
- Karren Smith 382-7190 1130a American War Mothers -Chapter #1
- Leola Scott 452-3736

 11:30a Las Vegas Clark County
 Library District
 Board of Trustees Meeting
- 733-7810
 12n Las Vegas Host Lions
 Charleen Lewis 453-4958
- 12n LV Luncheon Optimist Club Randy Clark 876-0239
- 12n Gashouse Gang Toastmasters Crayton Jones 365-2009
- 12n Paradise Seratoma Club 387-9312
- 6p Swing Dance Club of LV 736-2216

Oct. 10th (Cont.)

- 6:30p Amer. Business Women's Assoc. - Desert Dawn Chptr Linda Utterback 564-2467
- 6:30p LV Executive Lions Club Charles Sorrells 385-3703.
- 7 p Clark County Genealogical Society Linda McEwen 646-2222
- 7p Sunrise Library Green Thumb Gardening Series 453-1104
- 7p Clark County Library Great Books Discussion Grp. 733-7810
- 7p Spring Valley Library 'It's Your Funeral' - Part 1 368-4411
- 7:30p Divorced & Widowed Adjustment Support Grp. 735-5544
- 7:30p Adult Children of Dysfunctional Families 382-9939

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Little Theatre Goes 'Batty'

season filled with plenty of variety will greet fans of the Las Vegas Little Theatre this season as September's Tony Awardwinning "Biloxi Blues," kicks off the theatre's 11th season, only to be followed by the classic "Dracula."

Slated at the perfect time of the year -- Halloween -- this classic by John L. Balderston and Hamilton Deane will once again represent the "bat" with a far different image than the "Batman" movie. Performances are offered october 20 through November 5.

Three more productions follow this classic, including a selection termed "inspired lunacy." "Gemini" is an Obie-winning play by Albert Innaurato and is scheduled for February 2 through 18 of 1990.

You can bet sports fans will make their way to Jason Miller's "That Championship Season," just in time for "spring training." Performances will be held March 30 through April 15.

As a season finale, a program labeled by UPI's Gloria Cole as "the ultimate fantasy revenge" -- "Angry Housewives," from the book by A.M. Collins. With lyrics by Henry Chad, several "steaming mad" performances will be seen May 11-17.

Phone the Las Vegas Little Theatre for information at 383-0021.

Interested in subscribing? Turn to page 12 for details or call the Link at 368-1588.

Oct. 11th (Wed)

- call North LV Women's Golf Assoc, 457-4159
- call Thomas & Mack Center Ice Capades (Thru Oct. 15) 739-1002
- 7 a The Leads Club 365-6283 or 454-6056
- 7 a Henderson Kiwanis Club Rex Newell 564-3333
- 7:30a Casino Center Optimist Club Cal Calhoun 646-4554
- 8:30a S.I.I.S. Training Program 'Job Analysis' 388-3210
- 10a Clark County Library Library Tour 733-7810
- 11:30a LV Chamber of Commerce Women's Council Luncheon 457-8845
- 12n Las Vegas Exchange Club Bob Griess 734-4424
- 12n Las Vegas 49er Lions Charlie Brown 384-2471
- 2:30p Kiwanis Club of Golden K Srs. Preston Reid 645-0141
- 3 p Nevada Dept. of Highways Forum-Proposed SE Freeway 435-1840
- 5:45p Bachelors & Bachelorettes Toastmasters Mike Wilson 873-2739
- 6p Assoc. of Professional Mortgage Women Shirley Jackson 877-9135
- 6:30p Rainbow Library Classic Images Film Series 645-7500
- 6:30p Int'l Television Association Ginny McCord 876-6272
- 7p Boulder City Lions
 Robert Klein 293-2656
- 7 p Amer. Business Women's Assoc- Positive Image Chptr Debra Miller 364-1111
- 7p Amer. Business Women's Assoc. - Gameliers Chapter LaVern Brown 877-7861
- 7p West Las Vegas Library Green Thumb Gardening Series 647-2117
- 7p Writers Group of Nevada Workshop 453-2454
- 7 p Evening Optimist Club Hal Floyd 295-1943
- 7:30p City of Las Vegas
 American Classic Film Series
 386-6383
- 7:30p Winchester Community Ctr. Vampire Film Series 455-4340
- 7:30p NV Nuclear Waste Task Force Informational Meeting 878-1885
- 8p Las Vegas Jaycees Todd Stewart 457-8832

Community spotlight

NALA Teaches Youth About Getting "High On Life"

by Joe Cross

hile most people were kicking back over the long Labor Day weekend, one group of young people spent their time cleaning up the And, no, community. it wasn't a Scout troup or a Sunday School It was a bunch of former gang members who have turned their lives around through an amazingly successful program called "High On Life."

The 8-year-old program has taken on the gangs and, more often than not, been successful in helping young people not only break away, but become "regular" citizens.

In the process, according to its director, Aaron Angaran, "High On Life" has proven that for the kids who want to change, they can get away from the gangs -- and, quite often, once their peers see the dramatic changes in their lives. they become involved "The program has been touted as the most successful in State of Nevada, Angaran said of the

Editor's Note:
If there's an issue of local relevance you feel should be debated/discussed in the Link Forum, please contact the Southern Nevada LINK at 368-1588

Letters to the Editor are invited.

project that is a part of the Nevada Association of Latin Americans (NALA). "But, we say that it's the most successful one in the United States."

Not only has "High On Life" been successful in its anti-gang and substance abuse efforts, it has resulted in many teenagers becoming taxpaying adults by bringing to them a sense of self-

... they are able to turn away from the gangs and get their lives together -- often bringing their former gang friends into the program ...

worth. "If we just had jobs to offer, we wouldn't be successful," Angaran said. "We go a lot further than that."

The results often are viewed as amazing by "outsiders" exposed to the program and its young people -- kids who not only have learned the importance of self-worth, but have articulate become spokespeople for HOL. "We spend many hours teaching them how to speak (before an audience)," he said. "And not just to other kids; we have appeared before a number of organizations." One of them, he noted, was the United Way. "İt was at a noon luncheon and you know how hard it is to talk when there are dishes rattling and people eating," he said. But when we were finished, the kids got a

standing ovation."

Members of HOL, in fact, have been asked to speak to groups outside Las Vegas as well. "We took a group of 14- and 15-year-olds to Reno to speak to some older kids -- and they really paid attention because our kids were such good speakers," he said.

The Clark County
School District, he went
on, has become another
backer and will often
use HOL youngsters to
speak on gangs and
drug awareness.

Angaran speaks with much-deserved pride when he starts listing all of the accomplishments turned in by the youngsters -- not the least of which is the fact that they are able to turn away from the gangs and get their lives together -- often bringing their former gang friends into the program when they see the results. "As an example," he said, "we had this one young man who had been involved in a shooting, who decided he wanted to get away from that life. After a while, six of his friends, who had been watching what happened to him, ioined us."

He said examples like that are fairly common, adding that one of the myths about gangs -that they won't let members quit -- just isn't "At first they may true. hassle them," he said, "but once they realize the kids are serious and they are changing, they'll leave them alone. You can be sure that 90 percent of the gang members are watching

Please see 'High On Life,' Page 9

Senators Reward Productivity

Applications for the second annual United States Senate Productivity Awards for Nevada must be received by October 31st, according to our two State Senators, Harry Reid and Richard Bryan. Established by the U.S. Senate in 1982, the Productivity Awards seek to recognize organizations with effective productivity improvement efforts which contribute to the restoration of the nation's No. 1 position in the international marketplace.

The competition is open to all Nevada businesses and last year, two of the four winners were from Southern Nevada. In addition to the new small business category, awards will be given for productivity, excellence in manufacturing, service, government

and resort/travel.

Commenting on the program, Reid said, "There is no more important goal as we approach the last decade of the 20th century than to improve the productivity of our nation's industries."

"No one can deny that making our nation more competitive in world markets is vital if we are to maintain our international standing and economic independence," Bryan said.

The program is underwritten by Laventhol & Horwath, whose Las Vegas partner, Revelle Taylor, serves as honorary chairman of the awards board. Mike Ballard, marketing director for Laventhol & Horwath and chairman of the awards board, said the program's objective is two-fold: "First, to recognize those

organizations that are leaders in employee productivity; and second, to encourage those companies to share their productivity initiatives so that all Nevada businesses can benefit."

Sponsored by the Nevada Quality and Productivity Institute, the awards will be presented by the senators during a productivity conference scheduled for April at the new Mirage Hotel. Winners will be chosen by the awards board, a statewide panel that includes public and private industry leaders. Selection of finalists will be made by December 8, followed by board member site visits during January and February.

Winners of the awards this past spring included Citibank in Las Vegas for service and the Bureau of Reclamation in Boulder City for government. The other winners were Fitzgerald's in Reno for resort and travel and Reno's International Game Technology for manufacturing.

Oct. 12th (Thu)

call Henderson Chmbr of Comm. Henderson Bus Tour 565-8951

7 a LV Breakfaster Lions Mark Trinko 453-4958

11:45a Women in Communication Sidra Kain 794-0405

12n Uptown Kiwanis Club Rick Golightly 456-1606

12n West Charleston Lions Dick Grilz 362-8295

12n **LV Civitan Club** 565-5905

12:15p LV Optimist Club Ed Ferris 870-6470

5:30p LV Chamber of Commerce Women's Council Mixer 457-8845

5:30p **Tall Singles Club** 453-2681

5:45p I'll Drink to That Toastmasters Terri Williams 386-6201

6:30p Amer. Business Women's Assoc.- Mojave Rose Chptr Brenda Sprouse 735-2990

6:30p NV Small Business Dev't Ctr.
'Financial Options for Small
Business' 739-0852

7p Actors Repertory Theatre 'Antigone' 733-7810

7p Spring Valley Library
'Cards of Fate' - Tarot Cards
368-4411

7p Pro-Choice Advocacy General Meeting 798-3877

7:30p Phobic Support & Assistance 364-1111

8p Nevada Dance Theatre 'Cinderella' (Thru Oct. 22) 739-3838

8p So. NV Community Concert Association Mantovani Orchestra 646-3757

Oct. 13th (Fri)

7:30a Valley Voices & Vices Toastmasters Lorri Jackson 435-7678 12n High Noon Lecture

12n High Noon Lecture Toastmasters Donna Milcarek 362-2632

2:30p Clark County Library Classic Images Film Series 733-7810

7:30p B-Sharps of Las Vegas Dance 458-4167

8p Actors Repertory Theatre 'Antigone' 733-7810

"High On Life"

Cont. from Page 8
very closely." As a
result, he said, the best
recruitment for "High
On Life" has been word
of mouth.

The program has had a dramatic effect on the taxpayer's pocketbook as well, he pointed out. "This past fiscal year alone the kids (who joined the program and stayed out of the juvenile court system) saved, conservatively, \$250,000 in taxpayer's money. And that's a very conservative figure based on the fact that it costs (an average of) \$25,000 (when kids are held in the court That means a system). savings over the past four years of \$1 million -- and, again, that's a very conservative figure."

The courts have recognized the importance of the program, too, he said, and judges and counselors have

"mandated" kids join the program as a part of their sentencing.

Ironically, while "High On Life" has turned potential hard-core criminals into tax-paying citizens, the community hasn't responded the way Angaran feels it

"We're always
having to scrounge
for things," he said.
"Our kids have
been forced to
scrounge for the
past three or
four years."

should. "We're always having to scrounge for things," he said. "Our kids have been forced to scrounge for the past three or four years." As an example, Angaran said, members of the organization spent Labor Day Weekend painting

out graffiti on walls around town -- and yet, when they approached several local businesses asking for supplies, they were turned down flat.

While that sort of attitude could help reinforce the negative feelings many disadvantaged youth may have about the so-called system, its actually become a positive experience. "Sure, they get disappointed," he said, "but because they keep at it, they learn that diligence pays off."

One of their big supporters now is a paint company that turned down requests for donations of paint, brushes and rollers for use on their graffiti projects.

"But they kept going back and eventually the owner was so impressed, he came through with a lot of supplies," he said.

Please see "High On Life,' Page 10

Financial update

here there's a will, there's a way: a way to assure your wishes are carried out after you have passed away; a way to assure your children will be cared for by the guardians you (not the court) chose; a way to avoid the chances of your relatives arguing over your assets; and, a way to make a tragic time for your family a little less stressful by having your final wishes expressed clearly, leaving no room for error or misinterpretation.

Although it is perfectly legal to write your own will, it is not prudent and I strongly advise against it. The right words must be used in precisely the right manner, the correct format must be followed exactly, and the correct number of witnesses must be present; otherwise, you are risking leaving your heirs with an invalid will that

can cause confusion and heartache.

There is an infinite number of horror stories regarding people who either leave no will at all or an improperly written one. Recently, I spoke to a woman whose husband had been killed by a drunk driver. Although he had made his children the beneficiaries of his will, he had left his brother as executor. His brother locked this newly widowed woman and her children out of their own home until the estate could be settled. The children ended up losing many of their father's cherished belongings, although it was clear he meant for them to have everything he owned. Choosing an executor who agrees to take on the responsibility, who can handle the paperwork and

who will exercise discretion is vital. Consider having your attorney act as co-executor to provide balance to the decision-making methods of your executor.

If you leave minor children, a probate judge will pick a guardian for them if you have not appointed one in your will. Can you imagine anything more devastating to a child than to lose his/her parents and then be forced to live with a relative the child can't stand? Just being in the middle of a family playing "Who gets the kids?" is more than any child should be put through, especially while grieving over the loss of his/her parents.

You may need to choose a trustee (this can be a bank, a friend or a family member) if your will establishes a trust for your spouse or children. If your

trust is a large one, I suggest your bank act as trustee, or at least as co-trustee.

Having a will drawn up brings out the procrastinator in more people than any other single act I'm aware of -- don't be one of those "if-they-had-only-had-awill" stories that we financial planners collect. As soon as you finish this article, call an attorney who specializes in estate planning and make an appointment to have your will drawn up. It's a gift that won't be recognized until you pass away, but there is no gift you can give that will be more appreciated by your loved ones. LINK

Answer: Rotary Question: Can be found in Network Updates

Oct. 14th (Sat)

- call Stewart-Mojave Sports Ctr Co-ed Volleyball Tourney Perry Coyle 386-6563
- call Baker Park Comm. School Halloween Costume Wrkshp Marilyn Louden 733-6599
- 10a Green Valley Library Children's Stamp Collecting 435-1840
- 11a West Las Vegas Library 'Lines of Destiny'-Palm Rdng 647-2118
- 12n Italian Americans Columbus Day Parade 732-4900
- 12n Mt. Charleston Library Board Mtg-Friends of So.NV 733-7810
- 1 p Clark County Library Classic Images Film Series 733-7810
- 1p Green Valley Library Introduction to Calligraphy 435-1840
- 1:30p Las Vegas Today Show Filming
- Sandy Zimmerman 731-6491 2p Rainbow Library 'Lines of Destiny'-Palm Rdng 645-7500
- 3 p Serenata Chamber Orch. Open Rehearsal 368-4411
- 7:30p Chamber Music Southwest An Evening of Jazz 739-3535
- 8p Actors Repertory Theatre 'Antigone' 733-7810

10

Oct. 15th (Sun)

- call Opportunity Village 8th Annual Meatball Festival 384-8170
- call Charleston His. Arts Center Techochski Chamber Orch. 386-6383
- call Radio Control Racing Grp. Remote Control Off-Road Racing 644-2386 or 878-8825
- 3p Serenata Chamber Orch. Season Premier Concert 733-7810
- 4p Ikenobo Ikebana NV Chptr Japanese Floral Art 452-1920

Nuclear Waste __Task Force__

Cont. from Page 4

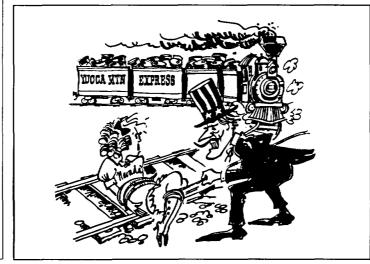
"Nevada is one of the states that has the fewest representatives in government," she said. "In February of 1988, the public believed Nevada had been chosen for the site and there was nothing we Nevadans could do about it. A lot of state legislatures thought the federal government

could overturn the laws. It has been interesting to see a state as sparsely populated as Nevada is and yet the people have been so outspoken. It proves that even a small state has rights. It has been empowering to the citizens. Secretary of Energy, James Watkins, said it would take 1,000 lawyers four years to get the special permits to get around the laws."

The Department of Defense has not given the DOE permission to evaluate the part of Yucca Mountain which is part of the nuclear test site.

The Nevada Nuclear Waste Task Force will have an informational meeting on Wed., Oct. 11 at 7:30 p.m.. The community is invited and encouraged to attend.

For more information about this meeting or booking the Task Force for a speaking engagement, call 878-1885. **LINK**



Cont. from Page 1

from a 14-day project designed to screen, evaluate and provide intervention services for the early stage chemical abuser, to a 20-week longterm chemical recovery program featuring services for long-time alcoholics and addicts. There is also a 28day chemical dependency recovery program that provides primary care for the middle stage addict or alcoholic. It concentrates on the 12-step program that has made Alcoholics Anonymous famous as well as an emphasis on spiritual values. The Las Vegas ARP also runs a residential

outpatient service for the U.S. Court System.

National officials apparently were impressed by the improvement the program has shown in the number of people it

had risen dramatically to 65 percent. The two-week short-term program was showing an even better rate in 1988 when, they said, 425 clients went through the program and 82 percent of

"Recognition is gratifying ... an even greater thrill ... to see the micraculous change in the lives of people ... "

rehabilitates. According to ARP officials, the long-term recovery program served 735 clients from 1985 to 1988. At the start of the period, there was only a 22 percent sobriety rate, but by the end of '88, that figure

them--350 people-successfully completed it.

"(The award) was a tribute to the program staff, advisory board members, volunteers and clients in the program," Sullivan said. "Las Vegas should be proud

of this outstanding drug and alcohol treatment program." He added, however, that "I receive an even greater thrill when I attend a graduation program at the center and hear clients say, 'My life was a mess, totally unmanageable. I had lost my health, my job, my family, my self-respect. I came to the Salvation Army. They gave me hope."" According to Sullivan, "Awards and plagues are nice. Recognition is gratifying. But being able to see the miraculous change in the lives of people is one of the most beautiful things in life." LINK

"High On Life"

Nevada Association for the Handicapped.

An information resource for programs and services available to the handicapped: developmental training, different resources, training for parents of children with special needs.

If you'd like to become more involved. call 362-8802.

Cont. from Page 9

The program often becomes a part of the young people's lives and as they get older, marry and get jobs, they still return to "offer assistance with younger members," Angaran said. "I'm continually amazed with the number of kids who come back," he said. "It helps create a family atmosphere.

We keep in direct contact with them for one to two years but they keep coming back on their own long after that."

Now if he could just get the business community to become a "part of the family," the war on gangs and substance abuse would find a pretty formidable opponent. LINK

So. Nevada Clean —Communities —

Cont. from page 1 affiliated. KAB has honored the organization by declaring that its Southern Nevada partner is part of KAB's Council of 100--top programs that serve as role models for 450 KAB units across the nation.

On Saturday, Oct. 28th, SNCC invites everyone to the Annual Lake Mead Clean Up. For information, call 796-5050. LINK

Oct. 16th (Mon)

- Clark County Parks & Rec. Registration for Fall Classes (Thru Oct. 27) 455-7506
- Charleston Hts. Arts Center City Hall Public Art Proposals 386-6383
- The Domestic Crisis Shelter Annual Luncheon 646-4981
- 5:30p American Cancer Society Support Group 798-6877
- 6p The Scrabble Club Games & Social 454-0620
- 6p Monday Niters Toastmasters Pete Savage 873-2739
- 6:30p Sunrise Library Classic Images Film Series 453-1104

- 6:30p North LV Host Lions William Soyer 642-3871
- Eating Disorder Support Grp. 364-1111 ext. 201
- Rainbow Library Green Thumb Gardening Series 645-7500
- 7:30p Divorced & Widowed Adjustment Support Group 735-5544
- 7:30p B-Sharps of Las Vegas Workshop
- Barbara 458-4167 7:30p Families Anonymous Support Group 732-3131
- Joe Behar Community Drama Wrkshp 457-0234

Oct. 17th (Tue)

- 7:30a Paradise Valley Lions Jerry Moleton 731-5511
- LV Chamber of Commerce Richard Simmons Seminar 457-8845
- Las Vegas Host Lions Charleen Lewis 453-4958
- LVLuncheon Optimist Club Randy Clark 876-0239
- Gashouse Gang Tstmstrs Crayton Jones 365-2009
- Silver Toasters Toastmasters
- Maureen Skinner 365-3427 Paradise Seratoma Club 12n 387-9312
- Swing Dance Club of LV 736-2216
- 6:30p Henderson/Gr. Valley Lions
- Richard Weidman 361-4446 6:30p LV Sunrise Lions
- James & Jeff Cho 735-6666 6:30p Green Valley Library Classic Images Film Series 435-1840
- 7 p S.I.D.S. Foundation Barbara Clark 455-4103

- M.A.D.D. 457-6233
- Spring Valley Library Green Thumb Gardening Series 368-4411
- Clark County Library Tax Laws on Retirement Plans 733-7810
- Spring Valley Library 7 p 'Its Your Funeral'- Pt. 2 368-4411
- Big Brothers/Big Sisters Volunteer Orientation 739-7818
- 7:30p Divorced & Widowed Adjustment Support Grp. 735-5544
- Clark County Library Storytellers of Las Vegas 733-7810
- 7:30p Adult Children of **Dysfunctional Families** 382-9939
- Jazz at the Hob Nob 10p 734-2426

Oct. 18th (Wed)

- call North LV Women's Golf Assoc
- 7 a Henderson Kiwanis Club Rex Newell 564-3333
- 7 a The Leads Club 365-6283 or 454-6056
- 7:30a Casino Center Optimist Club Cal Calhoun 646-4554
- 10a Clark County Library Library Tour 733-7810
- 12n LV Exchange Club Bob Griess 734-4424
- 12n Las Vegas 49ers Lions Charlie Brown 384-2471
- 12n NV Small Business Dev't Ctr.
 'Opportunity Day'
 739-0852
- 2:30p Kiwanis Club of Golden K Srs. Preston Reid 645-0141
- 3:30p Rainbow Library
 Children's Films (Ages 6-8)
 645-7500
- 3:30p Sunrise Library
 Stories in the Dark (For Kids)
 453-1104
- 5 p So. NV Employees Services & Recreation Association
 Randy Clark 876-8080
- 5:45p Bachelors & Bachelorettes
 Toastmasters
- Mike Wilson 873-2739
 7 p Associated Builders & Contractors
 384-5322
- 7p Clark County Library Las Vegas Poetry Group 733-7810
- 7 p Evening Optimist Club Hal Floyd 295-1943
- 7 p Writers Group of Nevada Workshop 453-2454
- 7 p Clark County Library 'The Divorce Experience'- Pt.3 733-7810
- 7:30p Winchester Community Ctr. Vampire Film Series 455-4340
- 7:30p Lake Mead Parliamentary Unit - Silver Maze Unit Helen Askew 878-9705
- 7:30p Pahrump Lions Allan Cook 727-6561
- 7:30p Sundowner Lions Club Norm Kaufman 451-1763
- 8p Las Vegas Jaycees Todd Stewart 457-8832

SRORTS LINK

Chuck Minker is Executive Director of the Nevada State Athletic Commission.

B oxing is pretty barbaric" -- trying to induce bodily harm being the sole basis of the sport.

"Hogwash! Boxing is the art of self defense; voiding your opponent's punches while trying to land your own. Plus it is a good outlet for getting kids off the streets and teaching them self discipline and self respect."

Both sides can agree on one point: Boxing is big business in Nevada. When a major championship fight of dollars are involved. The hotel that hosts the fight pays a site fee. Donald Trump reportedly paid over \$10 million to host the Mike Tyson/Michael Spinks fight last year. Obviously the hotels think it is good business to go after these fights. If the bid is accepted and they are the host, the immediate decision, which probably has already been made, is how to scale the tickets? Is \$100 or \$1,000 or even \$1,500 going to be the top price? If \$100 is going to be the lowest price, then how many of those tickets will be available to the

comes to Nevada, millions

public?

Normally, a big fight will be several months away. There will be a press conference to announce the fight and to start publicizing the Besides the media, event. executives of the other properties around town are invited to the press conference. The promoter will then try to stage press conferences in various big cities to promote interest in the fight. These actions help to hype the event and fill the seats with the fans who will fill the casino before and after the event.

How does this translate into money for the state? Last year, the Nevada Athletic Commission collected well over \$1.4 million in fees associated with boxing in our state. The budget of the Athletic Commission is approximately \$170,000, so you can see the Athletic Commission took in over \$1.2 million after recovering the amount of the budget.

The hotels don't host these events so the state can collect fees. They are expecting to do well financially with the event. Sports fans know that there are very few events that can match the electricity of a major championship fight. The final four in basketball would be comparable. People who may not be big fans of boxing want to be a part of the event. The hotel that is hosting will be absolutely packed with people the day of the event. The weigh-in will attract a big crowd and most important of all is the casino drop, which will be big both before and after the fight. Large fights attract high rollers and these fights pro-

You mention the name Las Vegas around the world and it means excitement and action. Boxing just helps enhance that reputation by creating the electrical atmosphere that people like to be a part of. **LINK**

vide millions of dollars to

the community.

Oct. 19th (Thu)

call Mirabelli Community Ctr. Table Tennis Tournament Sue Bartling 386-6359

- 7 a LV Breakfaster Lions Mark Trinko 453-4958
- 12n Uptown Kiwanis Club
- Rick Golightly 456-1606
- 12n West Charleston Lions Dick Grilz 362-8295
- 12n LV Civitan Club 565-5905
- 12:15p LV Optimist Club
- Ed Ferris 870-6470

 Sunrise Library

 Gallery Opening &
- Reception 453-1104 5:30p Tall Singles Club 453-2681
- 5:45p I'll Drink to That Toastmasters Terri Williams 386-6201
- 6p Women in Convention
 Sales Association
 Carol Kern 641-2785
- 6p Amer. Business Women's Assoc.- Silver State Chapter Doris Vondy 645-0037
- 7p Christian Toastmasters Charles Neil 799-6830
- 7:30p Phobic Support & Assitance

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Oct. 20th (Fri)

- call Stewart-Mojave Sports Ctr.
 Women's Racquethall Tourn.
 (Thru Oct. 22)
 Rich Clark 386-6563
- call Jaycee, Freedom & Lorenzi Parks
 Leisurefest 1989 (Thru Oct. 22)
 Steve Mead 733-6599
- call Grace Community Church Country Store & Rummage Sale 293-2018
- call Henderson Chamber of Commerce Home Show & Carnival (Thru Oct. 22) 565-8951
- 7:30a Valley Voices & Vices Tstmstr Lorri Jackson 435-7678
- 11:45a Latin Chamber of Commerce Monthly Luncheon 385-7367
- 12n High Noon Lecture Tstmstrs Donna Milcarek 362-2632
- 12n American Society of Training and Development Howard Pearson 564-2544
- 5p Alied Arts Gallery Works by Charleen Gagliardi (Thru Nov. 14) 731-5419
- 5:30p Women in Communications Electronic Media Awards Sidra Kain 794-0405
- 8p Las Vegas Little Theatre 'Dracula' (Thru Nov. 5) 383-0021
- 8p Actors Repertory Theatre 'I'm Not Rappaport' (Thru Nov. 4) 648-1986
- 8p Clark County Community College 'The Boys Next Door' (Thru Oct. 22) 644-PLAY

The Easter Seal Society has been working on behalf of the disabled since 1950. If you'd like to join with the Easter Seal team call 739-7717.

Oct. 21st (Sat)

7

l

- call American Cancer Society Imperial Byzantine Ball 798-6877
- call Boulder City Chamber of Commerce 'Boulder Dash 2' 50 Mile Bike Ride 438-4304
- call Boulder City Art Guild Art Show (Thru Oct. 22) 293-2138
- call Baker Park Community Sch.
 Dinosaur/Reptile Workshop
 Marilyn Louden 733-6599
- 8 a Juvenile Diabetes Found. 5th Annual Walk/Run 732-4795
- 9a NV Small Business Dev't Ctr. 'Exporting' 739-0852
- 10a Christ Church Episcopal 21st Annual Lobster Fair 735-7655
- 10:30a Clark County Library Stories in the Dark (For Kids) 733-7810
- 11:30a Star Aux. of Helen J. Stewart Luncheon & Fashion Show 454-5274 or 873-7750
- 1 p Sunrise Library Introduction to Calligraphy 453-1104
- 1:30p Las Vegas Today Show Filming Sandy Zimmerman 731-6491

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- ▲ Corporate & Business Ratings (Dunn & Bradstreet)
- ▲ Employment Verification
- Residency Status Reporting
- ▲ Banking Information
- ▲ Employee Screenings
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Fax: 731-0877 731-5085

After October 1, our extended hours will be 8 AM to 6 PM, 7 days a week.

October - Domestic Violence Awareness Month

he Domestic Crisis
Shelter is planning
several events in
October as part of Domestic
Violence Awareness Month.
The purpose of DVAM is to
educate the public about
domestic violence, mourn
the victims, and celebrate
both the survivors and the
work being done to end
domestic violence.

A "Take Back the Night"

march will be held on October 2, starting at 6:00 p.m. from Las Vegas City Hall, 400 Stewart. The march symbolizes a woman's right to safety in her home and in public.

The Domestic Crisis
Shelter's annual luncheon
will begin at noon, October
16, at the Alexis Park. The
guest speaker will be
Jan Armstrong of the

Southern California Coalition Against Domestic Violence. Tickets are \$15.00; please call for reservations.

The Second Annual
Desert Women's Day of
Unity will be held at Paradise
Park beginning at noon,
October 28. The day-long
event will include craft, art
and food booths, face
painting, a petting zoo and
Please see 'Shelter,' Page 14



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Domestic Crisis Shelter

Cont. from page 13
non-competitive games.
Musical entertainment will
continue throughout the
day, culminating in an
evening concert by Lucie
Blue Tremblay, 1986 winner
of Boston Globe's Top Ten
Artists Award.

Everyone is invited to enjoy all these free events.

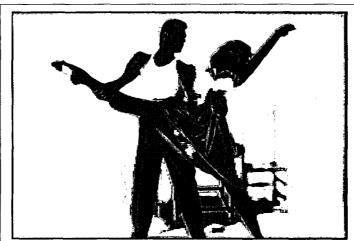
For more information about these events, including availability of booth space, please call 646-4981. **LINK**

The International
Television
Association - Las
Vegas Chapter (ITVA)
is dedicated to serving
the needs of the
professional video
communicator in
non-broadcast
settings.
For information on
how you can become
involved call
Ginny McCord
876-6272.

Las Vegas Music & Dance Ensemble Performance

ocal choreographers and composers from the Las Vegas Music & Dance Ensemble will team up with three special guest artists from San Diego to present a progressive and diverse concert at 2 p.m. on October 28 and 29 at UNLV's Judy Bayley Theatre.

The concert, sponsored by the UNLV Department of Dance Arts, will feature the collaborative works of guest artists -- choreographer/ dancer Nancy McCaleb, musician/composer Miles Anderson and musician Erica Sharp. In addition, local choreographers Dr. Carole Rae and Cathy Allen will showcase recent works: "Movements in Red," and "Atmospheres," respectively. Composers Walt Blanton and Greg Macaluso will also present



Pictured Left to Right are choreographers Dan Gardner and Victoria Dale. The Las Vegas Music and Dance Ensemble will perform at 2 p.m. on October 28 and 29 at UNLV's Judy Bayley Theater.

jazz and jazz/fusion numbers.

Directly following the performance, a "Meet the Artists" lecture and forum will be offered from the

theatre stage, where guest composers and choreographers will answer questions from the audience, discussing the

S.T.A.R. Auxiliary Fashion Show

f you'd like fashion and entertainment to be a part of your schedule on October 21, attend the annual membership luncheon of Helen J. Stewart School's S.T.A.R. Auxiliary (Service to Air the Retarded).

Caesar's Palace will set the stage for this elegant event beginning at 11:30 a.m. A fashion show sponsored by Saks Fifth Avenue will follow the works of well-known fashion designer, Dave Hayes. Hayes will attend in person to present his new fall collection.

Headlining as entertainment will be female impersonator Kenny Kerr.

For an afternoon of entertainment and fashion call 454-5274, 873-7750 or 735-9284.

Oct. 22nd (Sun)

call Vegas Radio Control
Racing Group
Remote Control
On-Road Racing
644-2386 or 878-8825
2p Las Vegas Symphony

Orchestra
Season Premier Concert
739-3420

2:30p Nevada Guitar Society Meeting 486-5205 process of composing and the composer/choreographer collaboration.

Concert tickets may be purchased at the Artemus Ham Concert Hall box office for performances taking place on October 28-29 at UNLV's Judy Bayley Theatre.

For further information call 739-3827.

Oct. 23rd (Mon)

- 1 p United Blood Service Blood Drive
- 733-7810
 4p Green Valley Library
 'Presto! It's Magic' (For Kids)
 435-1840
- 5:30p American Cancer Society Support Group
- 798-6877
 6p Amer. Business Women's
 Assoc.- North LV Chapter
 Yolanda West 384-3351
- 6p The Scrabble Club
 Games & Social
- 454-0620 :30p North LV Host Lions William Soyer 642-3871
- 7p Green Valley Library
 'Cards of Fate' Tarot Cards
 435-1840
- 7p Eating Disorder Support Grp 364-1111 ext. 201
- 7p NV Small Business Dev't Ctr. 'Marketing Strategies'- Pt. 1 739-0852
- 7:30p **B-Sharps of Las Vegas** Workshop Barbara 458-4167
- 7:30p Divorced & Widowed Adjustment Support Group 735-5544
- 7:30p Families Anonymous Support Group 732-3131
- Bp Joe Behar Community Drama Wrkshp 457-0234

Backstage with joe behar

"So ... You Want To Be A Star?"



Joe Behar, Founder/Director of the Community Drama Workshop, offers a free drama workshop every Monday night at Sam's Town, as he has for the past 17 years. Before moving to Las Vegas, Behar taught drama workshops with Emmy award-winning director Corey Allen and actor Edward Asner. Locally, Behar is probably most recognizable for the old Silver Slipper commercial with his line, "Tomorrow the diet, today the great buffet." Behar is a member of SAG, AFTRA and SEG.

ince this is my debut article let me give you some information that will be so useful to you that maybe you will clip this article out and place it by your phone.

If you are really serious about film and/or stage work, here are some organizations to contact:

Nevada Film Commission 486-7150 **Allied Arts Council** 731-5419

Oct. 24th (Tue)

- 12n LV Host Lions Charleen Lewis 453-4958 12n LV Luncheon Optimist Club
- Randy Clark 876-0239
- Gashouse Gang Tstmstrs 12n Crayton Jones 365-2009
- Paradise Seratoma of LV 12n 387-9312
- Charleston Hts. Library 4 p 'Presto! it's Magic' (For Kids) 878-3682
- 4:30p Clark County Park Rangers 'Halloween Safety Tips' 455-7517
- Swing Dance Club of LV 6p 736-2216
- 6:30p LV Executive Lions Club Charles Sorrells 385-3703
- 6:30p Sunrise Library 'Cards of Fate' - Tarot Cards 453-1104
- Clark County Library 7 p Great Books Discussion Grp. 733-7810
- Clark County Library 7 p Slide Lecture - S'ern Europe 733-7810
- 7:30p Divorced & Widowed Adjustment Support Group 735-5544
- 7:30p Adult Children of **Dysfunctional Families** 382-9939
- Jazz at the Hob Nob 734-2426

New West Stage Company 876-6972 Community Drama Workshop 457-0234 **UNLY Theatre Dept.** 739-3666 Clark County Community College 643-6060

Oct. 25th (Wed)

- call North LV Women's Golf Assoc 457-4159
- 7 a The Leads Club
- 365-6283 or 454-6056 7 a Henderson Kiwanis Club
- Rex Newell 564-3333 7:30a Casino Center Optimist Club
- Cal Calhoun 646-4554 10a Clark County Library Library Tour
- 733-7810 LV Exchange Club Bob Griess 734-4424
- 12n Las Vegas 49ers Lions Charlie Brown 384-2471
- 2:30p Kiwanis Club of Golden K Srs.
- Preston Reid 645-0141 5:45p Bachelors & Bachelorettes
- Toastmasters Mike Wilson 873-2739 Rainbow Library
- Classic Images Film Series 645-7500
- 6:30p Clark County Library Family Story Time 733-7810
- 7 p Junior League of LV Town Hall Mtg - Water Issue Mona Goshen 871-9288
- **Evening Optimist Club** 7 p Hal Floyd 295-1943
- **Boulder City Lions** 7 p Robert Klein 293-2656
- Clark County Library Green Thumb Gardening Series 733-7810
- Writers Group of Nevada Workshop 453-2454
- 7:30p Winchester Community Ctr. Vampire Film Series 455-4340
- Las Vegas Jaycees 8р Todd Stewart 457-8832

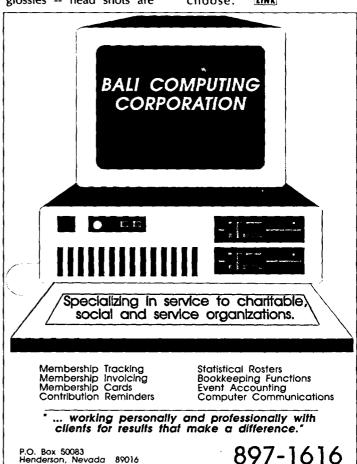
If you'd like to know who to ask for specifically when calling these organizations, give me a call at 457-0234.

Now, if you feel you're ready to take part in films, commercials, print work, modeling, conventions and voice-overs, here are the agencies you must cultivate: (But first, and most importantly, be sure you have your professional pictures and resumes. Pictures are the standard 8"x10" black and white glossies -- head shots are

preferred. Models should have a repertoire of pictures done professionally.)

> Lenz Agency 733-6888 Spectrum Services 388-7557 laki Baskow Agency 733-7818 Jess Mack Agency 382-2193

Here's wishing all of you continued success in whatever endeavor you choose. LINK



NETWORK UPDATES

Common Cause, a non-profit organization, is running a petition drive to roll back the 300 % legislative pension increase. Anyone interested in becoming involved call 382-4244, between 10 a.m. and 3 p.m.

The Juvenile Diabetes Foundation will hold its Fifth Annual Walk/Run fundraiser on Saturday, October 21. The 10 kilometer event will take place at the UNLV track; registration begins at 7 a.m., the event at 8 a.m. To help JDF achieve its \$25,000 goal, call 732-4795.

The Southern Nevada Chapter of the March of Dimes annual Bar-B-Que is Sunday, October 1st, from 6 to 10 p.m. The fundraiser, to benefit the March of Dimes Nevada Toll-free Pregnancy Risk Line, will be held at the Legends in Concert Ranch. For information call 734-1232.

You are invited by the Junior League of Las Vegas and the Eighth Judicial District Court Child Custody Division to "The Divorce Experience" — a three part educational program. Session I, on Wednesday, October 4th, looks at the legal aspects of divorce. Session II, on Wednesday, October 11th, outlines the emotional aspects of divorce. Session III, on Wednesday, October 18th, analyzes the effect on children. All sessions will be held at the Clark County Flamingo Library at 8 p.m. Attendance is free. For additional information, call 455-4905.

Bridge Counseling Associates' innovative Day Treatment Program for teens at risk or with substance abuse problems will be duplicated starting October 16th. This highly structured treatment plan for adolescents combines a drug free enviornment with

individual, family and group therapy. Due to the response BCA will be operating the program twice daily -- with a morning in addition to the established afternoon session. To find out more, call 734-6070.

The Las Vegas Art Museum in Lorenzi Park has three exhibits in October. Ron Rencher's painting exhibit in the Main Gallery, Jackie Gagnabin's works in the Nevada Gallery and Clark High School will display in the Youth Gallery. A reception will be held on October 1st from noon to 3 p.m.. For additional information call 647-4300

Las Vegas Match, a Jewish Family Service Agency, offers a homesharing program for seniors. Homesharing is two or more unrelated people who pool their personal and financial resources and share a home. Interested? Call 732-0304.

The National Association of Professional Mortgage Women (APMW) brings together its members for the exchange of experiences, ideas, and interests in all phases of mortgage banking. Membership is open to anyone employed in Mortgage Banking or a related field. For more information, contact Shirley Jackson at 877-9135.

The Clark County Unit of the American Cancer Society is in desperate need of volunteer drivers to take cancer patients to and from their treatments. Anyone interested in volunteering? Call 798-6877.

The Las Vegas Indian Center is providing instruction to those interested in obtaining their GED certificates. Instruction is free. For information call 486-5211.

The Therapeutic Family Care Program is in need of couples and individuals to take a child into their home. Call 486-6100.

Do tap dancing classes sound interesting? The **Nevada State Troupers** offer 12 month coed classes to those over 50 years of age. Still interested? Call 457-2044.

Applications are now being accepted by the U.S. Small Business Administration from female small-business owners who would like to be paired with a successful female entrepreneur in a new counseling program called "Women's Network for Entrepreneurial Training." For information on qualifications and applications contact Marie Papile at 388-6611

The Nevada Association of Latin Americans (NALA) offers Spanish classes 5:30-7:30 p.m. every Wednesday. For information call 382-6252.

Cocaine Outreach Network offers a Families of Addicted People therapy group; a men's recovery network; and meetings for Cocaine Anonymous. Call for details. 386-2661.

The American Association of Retired Persons (AARP) offers monthly classes for drivers 50 years of age or older. The refresher course includes rules of the road, overcoming the effects of aging on driving skills and defensive driving techniques.

For information call 386-8661.

The City of Las Vegas Doolittle Community Center will host a Halloween Party on October 27. The sixth annual event is designed for children up to ten years of age and will include carnival games and a costume contest. Call 386-6374 for your free ticket.

The Over the Hill Gang International offers outings for active seniors interested in hiking, swimming, canoeing, skiing, roller skating, racquetball, tennis, golf and other activities. For information call 873-8507 or 435-0329.

The UNLV University Library Society holds a book sale 11 a.m.-2 p.m. every Wednesday and the second Saturday of each month. Donations are welcome. For details call 739-3286.

A Very Special
"Thank You" from
the Link to our
broadcast and print
friends who have
demonstrated their
commitment to the
community.

KENO/KOMP Radio KEYV-The Key KJUL-The Jewel KLAS-TV8 KLVX-TV10 KORK- Golden Oldies KVVU-TV5 KWNR-95.5FM Henderson Home News Las Vegas Business Press New Dimensions Review Journal

NETWORK UPDATES

If you care about our community and about our youth, the Girl Scouts wants you to join their team. Volunteers are needed for many different positions -- call 385-3677.

Clark County Community College Theatre presents Tom Griffin's, "The Boys Next Door," directed by award-winning director Katherine Sandy O'Brien.

The production is a humorfilled look at the lives of four retarded men and the social worker charged with taking care of them. Evening performances are October 20, 21, 26-28 at 8 p.m., and a Sunday matinee October 22 at 2 p.m. For further information or reservations, call 644-7529.

The Nevada Guitar Society is looking for those who share their love for playing, teaching or enjoying classical guitar and other 'plucked' instruments. In addition to sponsoring concerts and workshops, they meet at 2:30 p.m. the last Sunday of each month. Guitar enthusiasts call 798-8077 for information.

The Arthritis Foundation offers an ongoing Water Exercise Program. There are several sessions every week in three different locations. For information call 367-1626.

"How to Put Fun in Your Funeral and Avoid Grave Mistakes," a workshop designed as a practical guide to death and dying, will be presented October 10 and 17, from 7 p.m.-9 p.m. at the Spring Valley Library. For additional information, contact the program presenter, Juneve Damus, at 734-1030.

Volunteer Literacy Services of Southern Nevada offers assistance to adults interested in learning how to read, write or speak English. If you know of someone who could benefit from the classes, please call 734-6421.

Emotions Anonymous, a 12step general purpose self-help group, meets 7 p.m. Mondays & Wednesdays. For information, call 456-9558.

Las Vegas-Clark County Library District is presenting the following exhibits during October: Oct. 1-22, Clark County,
"6th Annual Citywide Slide
Competition" First Place winning entries. Oct. 1-29, Green Valley, Brightly painted, full-size figures from the Smith Andersen Gallery. Oct. 1-31, Spring Valley Library Mixed media wall and floor sculptures by Diane Butner.
Oct. 1-17, Sunrise,
Calligraphy works on mixed media by Char Purcell.
Oct. 1-24, West Las Vegas,
Large format photographs by Large format photographs by Lee and Gayle Phelps.
Oct. 3-Nov. 7, Clark County,
Gallery Opening and Reception, "Southern Europe: Spain, Italy and France," large format black and white photographs by Michael Plyler. Oct. 19-Nov. 28, Sunrise Gallery Opening and Reception, Impressions," "Abstract collograph prints by Arizona artist Joan Reddie. Oct. 26-Dec. 5, West Las Vegas Gallery **Opening** and Reception,
"A View of the Past," crossstitch by Lois Mack.

The Las Vegas-Clark County Library District will be featuring the following films in their rotating Classic Images Film Series: "Hello, Dolly" and "Funny Girl,"

both starring Barbra Streisand.

The Tall Singles Club meets every Thursday, 5:30 p.m., at Deli 300 on Maryland Parkway. Membership is open ... to those that meet the height requirement ... 5 feet 10 inches for women and 6 feet 2 inches for men. If you're interested and qualified, call 453-2681.

The Yellow Ribbon Friendship People meets for dinner and pinochle games 6-10 p.m. Thursdays at Papachinos Restaurant. 457-5507.

The Serenata Chamber Orchestra, under the direction of Rodolfo Fernandez, opens its fifth season on Sunday, October 15, 3 p.m. in the auditorium of the Clark County Flamingo Library. For information call 733-7810.

Clark County and WestCare, a non-profit agency, are celebrating the completed expansion of the "Fitz House" detoxification center.

The Fitz House provides drug and alcohol rehabilitation services to indigents and is operated by WestCare. The agency allows local law enforcement officers to bring inebriated indigents to their facility rather than to University Medical Center.

The County had allocated \$259,450 in Community Development Block Grant funds to WestCare for the expansion project.

Question:

Name the group that defines itself as an organization of business and professional leaders, worldwide, who provide humanitarian service, encourage high ethical standards in all vocations and help build goodwill and peace in the world?

Hint: Membership is by invitation, on the basis of one representative of each business, profession, and institution, yielding a classification system that ensures a wide cross section of community representation. Give up? ... The answer's on page 11.

puge 17

Gamblers Anonymous has over 25 meeting per week, throughout the day, in several locations. Call today for help -- 385-7732 or 459-0864.



WHAT EXACTLY IS THE NETWORK UPDATES SECTION?

- A. 'Network Updates' provide a more detailed look at selected Community Calendar events and noteworthy happenings around the community.
- Q. How can I have information listed in 'Network Updates'?
- A. Simple ... call the LINK at 368-1588.

by Lynn Kohler

ast August 22nd, a number of *Link* readers attended the first of several seminars which will be offeredby the Southern Nevada Link, free of charge. Southern For those who were unable to enjoy the information shared by three guest panelists on "How To Write & Distribute an Effective Press Release," this column will offer a brief summary.

Each of the three panelists represented a different medium; Bob Fisher of Henderson Home News represented print, Whitney Whiteman of KJUL Radio spoke on behalf of radio and KVVU-TV5's Deborah Campbell shared the television side of media relations. As it turned out, speakers shared quite a bit of information in the short, 7:30 to 9:00 am gathering, with each speaker's presentation revolving around one theme. Bob Fisher focused discussion on STYLE, and kicked things off with this handy phrase: "Journalism is formula writing ... once you know the formula, you can write anything." Stressing that the first paragraph in any release is the most critical, Bob expressed that "this is not

"Journalism is formula writing ... once you know the formula, you can write anything."

the time to save the 'best for Jast.''' Editors generally cut from the "bottom up." five "Ws" should be included in every release; "What, Where, When, Why and How" (the latter is a "W" in disguise), usually in the first paragraph, with "What" being the first news conveyed.

Bob informed the audience that releases should be received by the press at least three days prior to the event (television seems to like more lead time). He also mentioned the fact that fast-breaking releases can now, in most cases, be faxed or modemed directly to media publications like Henderson Home News.

KJUL's Whitney Whiteman audibly shared that radio can give organizate press releases MAXIMUM PUBLICITY. According to Whitney, radio is the number one source of news and during information emergency, and each household owns 5.6 radios. Touching again on the 5 "Ws," recommended that releases be short and to-thepoint.

To go along with these "punchy" releases should be an accurate media list, which is updated often. Whitney stressed phoning the media Whitney to double-check names and addresses. While on the phone, "it's a good idea to enquire about being a guest on public affairs programming the station might offer."

Two to three weeks lead on releases recommended, with follow-up phone calls being vital to assuring the release gets air

Finally, Deborah Campbell of KVVU-TV, spoke about the television end of media relations, emphasizing that SEEING IS BELIEVING. "AM Southern Deborah's Nevada" talk show was a springboard for her topic. After

release and being selected as a guest, she outlined a few considerations for being on camera.

Guests should be chosen carefully, as they visually and represent the organization or cause. They should be able to converse on camera (some freeze-up), and guests should be visually appealing, leaving the cut-offs and thongs behind. It 's a good idea to bring visuals: " ... art, pets, props, t-shirts, making the interview as interesting as possible." Deborah also stated that topics of general interest or topics that are visual in nature usually have the best shot at making it on her program. Three to four weeks notice on releases was suggested, as her show books well in advance.

Being a veteran of the Las television Vegas market, Deborah shared a few other thoughts about releases: "Make sure it gets into the right hands ... in some stations, if it's not your mail, it goes into the trash can." For news coverage, she recommended releases sent to assignment editors and sometimes reporters, if the subject appeals to their specific assignment area.

A very special "THANK YOU" these three talented journalism professionals for sharing a bit of their time and expertise with Link readers. In answer to the question near the headline of this column ... only when you're outside writing and distributing a without sunscreen. **LINK**

Oct. 26th (Thu)

Boulder City Rec. Dept. Haunted House 293-9256

LV Breakfaster Lions 7 a Mark Trinko 453-4958

- 7 a Nat'l Association for Professional Saleswomen Gail Bruno 364-2252
- 12n West Charleston Lions Dick Grilz 362-8295
- 12n Uptown Kiwanis Club Rick Golightly 456-1606
- 12n LV Civitan Club 565-5905
- 12:15p LV Optimist Club Ed Ferris 870-6470
- 4:30p West Las Vegas Library 'Presto! It's Magic' (For Kids) 647-2117
- West Las Vegas Library Gallery Opening/Reception 647-2117
- 5:30p Tall Singles Club 453-2681
- 5:45p I'll Drink to That Toastmasters Terri Williams 386-6201
- Clark County Library 'Cards of Fate' - Tarot Cards 733-7810
- 7 p **Allied Arts Council** Richard Wiley - Reading 731-5419
- 7:30p Phobic Support & Assistance 364-1111
- 8р Charles Vanda Master Series New Mexico Symphony Orch 739-3535
- 8р **UNLV University Theatre** 'Crooked River' - (Thru Nov.5) 739-3535
- 8р Clark County Community College 'The Boys Next Door' (Thru Oct. 28) 644-PLAY
- 10p Jazz at the Hob Nob 734-2426

Oct. 27th (Fri)

- call Doolittle Community Ctr. 6th Annual Halloween Party Bobby McRoy 386-6374
- call Charleston Hts. Comm. Ctr. Halloween Party Judy Schroeder 878-8644
- call Baker Park Comm. School Halloween Party Dale Barbeau 733-6599
- North LV Chamber of Comm. Hot Air Balloon Race (Thru Oct. 29) 642-1944
- 11:30a Public Relations Soc. of Amer Rick Gale 791-2377
- High Noon Lecture Tstmstrs Donna Milcarek 362-2632
- Divorced & Widowed 1 p **Adjustment Support Group** 735-5544
- 2:30p Clark County Library Classic Images Film Series 733-7810
- 3:30p Sunrise Library 'Presto! It's Magic' (For Kids) 453-1104
- 7:30p B-Sharps of Las Vegas Dance 458-4167
- City of Las Vegas 'Vincent' - A One Man Show

New Volunteer Program

he St. Vincent Dining Room is greatly in need of volunteers during the lunch meal. The dining room has been feeding over 700 people a day, with the majority at the noon meal. With winter approaching, these numbers are expected to increase substantially.

Beginning November 1, St. Vincent Dining Room will be instituting a community staffing program for the lunch meal. The program will schedule groups of 14 people from a business, parish, or an organization to serve in the dining room one day per month.

The new volunteer program is modeled after a Community Staffing Program in Salt Lake City. For more information, please call Gae Chalker or Sandy Windom at 737-1803. **LINK**

Big Brothers/Big Sisters

... Matching volunteer adult companions with single-parent children to create a brighter tomorrow for youth.

739-7818



Future Pioneers Craft Fair

B ooth applications are now available for the second annual Charles Dickens' Christmas Craft Faire sponsored by the Independent Telephone Pioneers Association, a non-profit organization.

The Faire will begin at 9 a.m. on Saturday, October 21, in the Centel parking lot at 330 S. Valley View Blvd.

A few prime booth locations are still available. Proceeds will benefit a charity in the Southern Nevada area.

For booth applications or information, contact Donna Collins at 646-4404 or Karen Sherwood at 647-0048.

CAAR Offers Around-the-Clock Services

AAR is a 24-hour crisis intervention service for victims of sexual assault and their families.

CAAR's services include a 24-hour hotline, accompaniment to the hospital, law enforcement, and the Criminal Justice system, filing of request for County and State compensation and referrals to assist with other needs.

CAAR also provides statewide training on prevention and intervention, speakers bureau, and acts as expert witnesses for victim legislation.

The crisis hotline number is 366-1640; the administrative office can be reached at 385-2153. **LINK**

Thanks for giving it your best. United Way.

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R.O.A. Announces New Board

ounded in the late '70s, the Receptive Operators Association (R.O.A.) is pleased to introduce its new slate of board members: Bruce Plant of McFee & Associates; Sandy Martin of the Dunes Hotel; and Nora Cooper of Guiness World Records Museum. In conjunction with officers; Karren Smith, Vince Garth, Mary Thomas and Gail Knowles, R.O.A. will create a board with over 125 years of collective tourism experience.

R.O.A. is comprised of professionals representing tourism-related businesses. The group promotes business

Oct. 28th (Sat)

- call Dell Robison Comm. School Halloween Party Mark Norman 459-0201
- call So. NV Clean Communities
 Annual Lake Mead Clean Up
 796-5050
- 11a Green Valley Library
 'Lines of Destiny' Palm
 Reading 435-1840
- 12n West Las Vegas Library 'Author! Author! (For Kids) 647-2117
- 12n The Domestic Crisis Shelter
 Desert Women's Day of Unity
 646-4981
- 1 p Spring Valley Library
 'Lines of Destiny' Palm Reading 368-4411
- 1 p Clark County Library Classic Images Film Series 733-7810
- 1p & County Cultural Division
- 7 p Spooky Stories for Kids 455-4340
- 1:30p Las Vegas Today Show Filming
- Sandy Zimmerman 731-6491 2p University Dance Theatre Fall Concert
- 3p Clark County Library
 'Lines of Destiny' Palm
 Reading 733-7810

Oct. 29th (Sun)

- 2p University Dance Dept. Fall Concert 739-3535
- 2p University Music Dept. Univ. Musical Society Orch. 739-3535
- 2p Opus Dance Ensemble 'Opuseven' 732-9646

ethics, recognizing the receptive operator profession and sharing information which ensures continued professionalism in the Las Vegas market -- a role-model around the globe.

R.O.A. meetings are scheduled the second Tuesday each month. For information, contact Karren Smith at 382-7190. LINK

Oct. 30th (Mon)

- call Reed Whipple Cultural Ctr. 'Fools & Friends' 386-6383
- call Mirabelli Community Ctr. Halloween Carnival Sue Bartling 386-6359
- 11:30a LV Chamber of Commerce Nevada Days Luncheon 457-8845
- 3:30p Spring Valley Library
 'Presto! It's Magic' (For Kids)
 368-4411
- 5:30p American Cancer Society Support Group 798-6877
- 6p The Scrabble Club Games & Social 454-0620
- 6:30p North LV Host Lions William Soyer 642-3871
- 6:30p Rainbow Library
 'Cards of Fate' Tarot Cards
 645-7500
- 7p Eating Disorder Support Grp. 364-1111 ext. 201
- 7 p NV Small Business Dev't Ctr. 'Marketing Strategies' - Pt. 2 739-0852
- 7:30p B-Sharps of Las Vegas Workshop
- Barbara 458-4167
 7:30p Divorced & Widowed Adjustment Support Group 735-5544
- 7:30p Families Anonymous Support Group 732-3131
- Bp City of Las Vegas Tales of Terror 386-6211
- 8p Joe Behar Community Drama Wrkshp 457-0234

For the time of your life ... join YMCA - Las Vegas.

877-YMCA

Is This Where Your Direct Mail Campaign Is Being Delivered?

Hopefully not, but if you want to make a comparison between Direct Mail Companies. this is, without a doubt, where the difference can be determined. Is my Direct Mail being opened and read or "circular filed?" It's very easy to determine ... It's in the measure of your RESPONSE; and since that's the name of our company, that's exactly the service we provide for our clients. What's the secret? It's simple. With a concept to completion service, we create the design, do the printing and target the audience to assure you that your advertising message will be received with



RESPONSE MAIL○≋

Special allowances always given for non-profit budgets.

Call 791-3340 Today!

Oct. 31st (Tue)

- 12n LV Host Lions Charleen Lewis 453-4958
- 12n LV Luncheon Optimist Club Randy Clark 876-0239
- 12n Gashouse Gang Tstmstrs Crayton Jones 365-2009
- 12n Silver Toasters Toastmasters
 Maureen Skinner 365-3427
- 12n Paradise Seratoma Club 387-9312
- 2 p Rainbow Library Stories in the Dark (For Kids) 645-7500
- 4p Clark County Library 'Presto! It's Magic' (For Kids) 733-7810
- 4p Charleston Hts. Library Stories in the Dark (For Kids) 878-3682
- 4 p Rainbow Library Stories in the Dark (For Kids) 645-7500

- 4:30p West Las Vegas Library Stories in the Dark (For Kids) 647-2117
- 6p Boxing Event 385-9192
- 6p Swing Dance Club of LV 736-2216
- 6:30p Green Valley Library Classic Images Film Series 435-1840
- 7:30p Divorced & Widowed Adjustment Support Group 735-5544
- 7:30p Adult Children of Dysfunctional Families 382-9939
- 10p **Jazz at the Hob Nob** 734-2426

Royalty to Visit Las Vegas

as Vegas will roll out
the red carpet on
October 21 to
welcome His Royal Highness
Prince Henri Constantine
Paleologue for the
American Cancer Society's
Imperial Byzantine Ball at

Caesar's Palace.

Prince Paleologue is the Grand Master of the Ancient Order of St. John, founded in 600 A.D. to relieve suffering and strengthen the moral and spiritual commitment of humankind.

The prince and princess will travel from Cannes, France, with an entourage of approximately 300 knights and ladies. The evening will start with pageantry of the knights and ladies as they are received into the Order.

Following the investiture ceremony will be a Gala Ball and entertainment.

Those interested in sharing this once-in-a-lifetime experience should contact the American Cancer Society at 798-6877. **IIM**

Best of the Strip Steps Out in "Opuseven"

ost of Las Vegas' major hotels will be represented when 15 of the best dancers appearing on the Strip combine talents to perform in Opus Dance Ensemble's fall concert, "Opuseven."

The concert will be held

"favorable attention."

The concert will be held on Sunday, October 29, at 2 p.m. in the Tropicana Hotel's Tiffany Theater. The performance will include some original works among the five numbers, with dance styles ranging from classical ballet to contemporary jazz.

Guest choreographer Jaymi Marshall and Opus' artistic director McGarry Caven will both premier new works. The Ensemble will also present a repeat performance of a modern ballet choreographed by the late Winston DeWitt Hemsley.

Tickets will go on sale
October 1 at the following
locations: Bullock's, The
Tinder Box (Boulevard Mall),
The Upper Ear, The Paper
Moon (Green Valley) and
Burk Gallery (Boulder City).
Advance ticket prices are
\$8; tickets will be \$10 at
the door. For more
information about the
performance or the
group, call 732-9646.





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