Department of Energy
Nevada Operations Office
P. O. Box 14100
Las Vegas, NV 89114-4100

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(Return to WM, 623-SS)

J. J. Linehan, Project Manager
Section Leader
Repository Projects Branch
Division of Waste Management
U. S. Nuclear Regulatory Commission
M/S 623-SS
Washington, DC 20555

U. S. NUCLEAR REGULATORY COMMISSION (NRC) REQUEST FOR GEOLOGIC DATA

Enclosures are published reports.

Enclosed is the information requested by NRC as a result of the September 1984, geology data review meeting. Please contact J. S. Szymanski if you have any questions.

Enclosures are located in the NWMSI Lib.

Donald L. Vieth, Director
Waste Management Project Office

WMPO:JSS-1276

Enclosures:
1. USGS letter from Raup to Vieth dated June 25, 1985
2. USGS-OFR-84-788 ✓
3. USGS-OFR-84-552 ✓
4. USGS-OFR-85-47
5. USGS-OFR-85-224
6. USGS-OFR-85-298
7. USGS-OFR-84-789 ✓
8. USGS-OFR-84-120 ✓
9. USGS-OFR-84-848

cc w/encl:
P. T. Prestholt, NRC, Las Vegas, NV
C. H. Johnson, NWPO, Carson City, NV
M. A. Glora, SAIC, Las Vegas, NV
V. J. Cassella, DOE/HQ (RW-22) FORSTL

cc w/o encl:
R. B. Raup, Jr., USGS, Denver, CO

NV1022229 H

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United States Department of the Interior

GEOLOGICAL SURVEY
BOX 25046 M.S. 913
DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY
REFER TO:

June 25, 1985

Dr. Donald L. Veith, Director
Waste Management Project Office
U.S. Department of Energy
P.O. Box 14100
Las Vegas, Nevada 89114-4100

RE: NRC DATA REQUEST FOR NNWSI GEOLOGY DATA REVIEW

Responses to the thirteen requests are given below. Many of the data requested are processed or refined data or are interpretations. Peer review is a critical part of our assurance that the processing and interpretations are of acceptable quality. In addition, reports that include data of these types require approval by the Director of the U.S. Geological Survey before release to the public. In specific cases listed below where reports are still in the review process, a copy of the report will be sent as soon as approval is received from the Director.

1. Televiewer log and stress measurement data for holes USW G-3 and UE-25 P-1, Yucca Mountain.
   These data are presented in a report that requires peer review and approval by the Director of the U.S. Geological Survey prior to release. The report currently is at DOE for their approval before submittal for Director's approval.

2. Seismic refraction profiles along Crater Flat and across Bare Mountain, Nye County, Nevada.
   The profiles are interpretive and require peer review for verification. A report by H. Ackermann is in the review process now.

3. Copies of unpublished trench maps for RV-1, RV-2, and trench numbers 8, 10B, 11, 13, and 14.
   Reconnaissance logs of all but RV-1 and 2 are included in USGS Open-File Report 84-788, copy enclosed. Logs of RV-1 and 2 have not yet received Director's approval after peer review.

4. Copies of Gordon Bath's 2 and 3 dimensional aeromagnetic computer program with example models.
   Bath's 2-dimensional technique is hand generated rather than a computer program. It is based on pieces of various published non-computer techniques. Bath's 3-dimensional program was designed by Rosenbaum, modified by Blevins (errors in the system), and corrected by Jahren. The program has not been verified and there are no published results.

ACTION
CC: Szymanski
CC:
CC:
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5. Copies of overhead compiling data collected from G-3 and G-4 core.
These data are included in USGS Open-File Report 84-552, copy enclosed.

6. Data from Prescott's crustal deformation research at the Nevada Test Site, August 1984.
These data are unrefined and essentially meaningless without data from a duplicate line, which has not yet been run. Change is the critical value, not the datum. A duplicate line is scheduled for FY 1986.

7. Data resulting from uranium dating of Quaternary deposits in the Nevada Test Site, area, Nevada and California.
Uranium-series dating (as distinguished from uranium-trend dating) was done by J. Rosholt and colleagues for fracture fillings in cores and for fracture fillings and caliche near surface. These data are in USGS Open-File Reports 85-47 and 85-224, copies enclosed.

8. Data resulting from uranium-trend dating of materials in the Yucca Mountain area.
A discussion of uranium-trend systematics is given in USGS Open-File Report 85-298, copy enclosed. This report is the first in a series that will include two specifically concerned with material from the Nevada Test Site and Yucca Mountain. The two reports, which are in preparation, include interpretive material and therefore require peer review and Director's approval.

9. Lithologic log for G-4.
These data are reported in USGS Open-File Report 84-789, copy enclosed.

10. Geologic map (1965) of the Topopah Spring SW Quadrangle, Nye County, Nevada, with new gravity data superimposed.
Gravity contours in the form of an overlay are still based on incomplete and unrefined data. Contours are interpretive and have not yet completed peer review nor received approval by the Director of the USGS for release.

11. Ground magnetics and micro gravity survey data across Fortymile Wash.
These data are in a report currently undergoing peer review prior to submittal for Director's approval.

12. Preliminary magnetic survey data of Yucca Mountain.
Results of the first data acquired are in USGS Open-File Report 84-120, copy enclosed. A report on more recent data is not yet completed.

13. Results of permeability studies (Part II) of the Topopah Spring Member of the Paintbrush Tuff, Nevada Test Site. These data are presented in USGS Open-File Report 84-848, copy enclosed.

Sincerely,

RBRaup

Robert B. Raup, Jr.
USGS, Geologic Division Coordinator
NNWSI

Enclosures

Copy to: J. F. Devine
W. W. Dudley, Jr.
E. H. Roseboom, Jr.