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NUCLEAR SYSTEMS SAFETY PROGRAM
L-196

May 6, 1987

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WM Project 10, 11, 16
Docket No. _____

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'87 MAY 12 AM 11:29
Mr. Michael E. Blackford, MS-623ss
Project Officer, WMGT
Geology/Geophysics Section
Technical Review Branch
Division of High-Level Management
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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Blackford | Joan-ticket
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SUBJECT: Monthly Management Letter Report No. 9
Progress for the Month of April 1987
NRC FIN A-0297
Technical Assistance in the Identification and
Evaluation of Seismo-Tectonic Issues Related to
Repository Site Characterization Plans

Dear Mr. Blackford:

This is our Monthly Management Letter Report No. 9 under the subject
NRC FIN Number A-0297.

1. PROGRESS - MAY 1987

General:

In our effort to prepare ourselves for SCP reviews, we started to re-examine those sections and chapters in DOE's Final EA's for three (3) candidate sites. We are also looking at some of references cited in these EA's for the purpose of our clarification. This effort will continue.

BWIP:

No new work was accomplished during this reporting period.

NNWSI:

H. Larry McKague and C. Rus Purcell, after the February-March field trip program, have been reviewing materials of interest in our SCP reviews. Larry McKague worked in close coordination with Ms. C. Abrams, a lead NRC geologist for the NNWSI site.

In accordance with Task II, the following reports have been reviewed and studied for future reference:

- (1). B. de Voogd, L. Serpa, L. Brown, E. Hauser, S. Kaufman, J. Oliver, B.

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W. Troxel, J. Willemin and L. A. Wright (1986). "Death Valley Bright Spot: A Midcrustal Magma Body in the Southern Great Basin, California," *Geology*, vol. 14, p/ 64-67.

Based on deep seismic reflection profiles by COCORP, these authors propose midcrustal (about 15 km) magma body beneath central Death Valley.

(2). S. Sinnock and R. G. Easterling (1983). "Empirically Determined Uncertainties in Potassium-Argon Ages for Plio-Pleistocene Basalts from Crater Flat, Nye County, Nevada," Sandia Rept. SAND 82-2441, p. 1-15.

The results of an experiment to determine the uncertainty of K-Ar isotopic age determination for late Cenozoic basalts are discussed. Authors concluded that Quaternary basalts with about 1.5% K-content can be assigned, at 90% confidence, an age within an interval of about one million years, if six samples from a single site are dated. With one sample the interval increases to 1.4 million years.

(3). G. D. Robinson (1985). "Structure of Pre-Cenozoic Rocks in the Vicinity of Yucca Mountain, Nye County, Nevada - A Potential Nuclear Waste Disposal Site," U.S. Geological Survey Bull. 1647, p. 1-20.

An interesting broad brush, imaginative interpretation of structure in Pre-Cenozoic rocks. Emphasises role of folding. Interprets sparse data to indicate the pre-volcanic rocks are deformed into an essentially intact asymmetric synclinal basin about 80 km broad. Yucca Mountain is in the southwest section. Buried subordinate folds beneath and/or around Yucca Mountain are interpreted to be concentric, open, moderately dipping. Regional evidence suggests that one or more thrust faults break the Proterozoic-Paleozoic section beneath and/or south of Yucca Mountain. However, we feel, they cannot be characterized with available information.

SALTS:

Several recently received DOE documents relevant to nuclear waste disposal in bedded salt were scanned prior to their filing for future reference at the time of SCP reviews.

2. PLANS FOR NEXT MONTH

The May 1987 project coordination meeting was suggested in the NRC letter, dated 13 April 1987. We are planning to have this meeting in the week of May 18th.

Our study of relevant sections and chapters in the Final EA's for the BWIP, NNWSI and Salt (Deaf Smith and Swisher Counties) sites will

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continue.

3. ESTIMATED PROJECT FINANCIAL STATUS

See ATTACHMENT A. The Attachment A will become available in late May 1987. We will submit it when it becomes available.

4. LIST OF CONSULTANTS/SUBCONTRACTORS

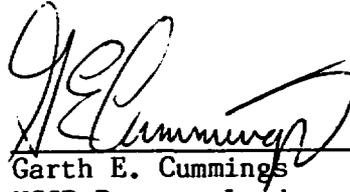
D. B. Slemmons and Associates
Richard W. Galster
Charles (Rus) Purcell
Robert J. Wright

5. PROJECT CONCERNS

None.



Dae H. (Danny) Chung
Project Leader



Garth E. Cummings
NSSP Program Leader

cc: K. Anderson, LLNL/NSSP
M. Ciraulo, DOE/SAN
E. Davis, NRC/NMSS
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