

# CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

## MEMORANDUM

September 27, 1994

TO: Wes Patrick, President

FROM: Larry McKague, Manager, Geologic Setting Element *ALYMEK*

SUBJECT: Consultant Service Contract for Dr. James F. Luhr

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The following information is submitted in connection with this request to provide a consultant service contract for the subject consultant. A previous one year duration consulting agreement with Dr. Luhr expired in November, 1992.

### RATIONALE FOR CONTRACT:

Dr. James F. Luhr was selected to provide consulting services for technical support of the Center's Geologic Setting Program Element in volcanology and related technical areas in geochemistry, mineralogy, and igneous processes. Specific work may include DOE study plan review, DOE Site Characterization Progress Report review, participation in Center support of NRC/DOE technical exchange meetings and field trips, support of technical position and rule development, technical assistance in development of prelicensing guidance, support of research projects and related activities. He may also participate in the development of scenarios of geologic events and processes for work related to performance assessment.

He has performed excellent investigations in volcanology, geochemistry, mineralogy, igneous processes, and related geologic disciplines from 1978 to the present. His credentials and experience in these scientific disciplines are outstanding. Dr. Luhr has previously submitted all necessary materials for consideration on conflict of interest and was found by the Center to have no conflict of interest. A record of his professional qualifications is given in his resume which is also preserved in the Center's files. He has previously provided consulting services to Division 20 and he has a consulting contract with the Institute which expired in September, 94. His performance as a consultant for the Center was excellent.

Dr. Luhr will provide expertise and experience in the geoscience disciplines (given above), particularly certain aspects of volcanology, which are not available from the staff in all Divisions of this Institute.

### PROJECT NUMBERS:

20-5702-001, 20-5704-123, 20-5704-124, 20-5704-142, and 20-5704-143

### DAYS/HOURS REQUIRED:

Approximately 20 days of the consultant's time will be required for participation in technical tasks during the next one year period. Enclosed herewith is a resume or curriculum vitae of subject consultant's capabilities for review and conveyance, along with this memorandum, to the Personnel Department.

October 8, 1997

### STATEMENT OF WORK FOR JAMES LUHR

Dr. Luhr will participate in completion of the activities related to basaltic petrology and geochemistry in the YMR.

Potential activities may include:

- Participation in ongoing CNWRA studies of the petrology of Yucca Mountain region basaltic volcanoes.
- Modeling, interpretation, and publication of the study results with CNWRA staff.
- Dr. Luhr will review his recent work involved in studies of the structural controls of basaltic volcanism at the Camargo volcanic field, Mexico.

### LIST OF ELIGIBLE CONSULTANTS WHO WILL RESPOND TO RFP

No consultants were identified that have Dr. Luhr's background and experience.

### RATIONALE FOR NOT USING ANOTHER SWRI DIVISION'S RESOURCES

Dr. Luhr has been selected as a consultant because employees in other SwRI divisions do not have the necessary background and experience in igneous petrology and are COI free. The recent DOE PVHA assessment included many of the leading igneous petrologists. Dr. Luhr was not involved in the PVHA assessment.

### RATIONALE FOR FEE

Name: James Luhr

Estimated total number of hours: 100

Hourly rates:

Dr. Luhr's fee is turned over to the Smithsonian Institution to compensate for time Dr. Luhr spends on CNRWA work.

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*A. Lamm McKeague*  
10/8/97