

SUPPORT FOR CONTRACTOR REQUEST

CONTRACTOR: Dr. Ilya Partom

RATE (dollars/hour)

PERIOD OF PERFORMANCE: May 3, 1999 through May 1, 2000

STATEMENT OF WORK: Dr. Partom will assist technical staff in the PA element to develop a simplified approach to modeling the colloidal transport of radionuclides in the subsurface that can be implemented in the TPA Versions 3.3 and 4.0 codes. Dr. Partom will review existing papers and reports on methods that have been employed to simulate the processes of radionuclide sorption and de-sorption on natural colloids and the filtration and anion-exclusion of colloids in fractured porous media. Dr. Partom will also develop computer models in FORTRAN 77 that can be used to evaluate simplified models of colloid transport.

ESTIMATED UTILIZATION (hours): 500 hours.

PRIOR CONTRACTOR WORK EXPERIENCE WITH SWRI: None.

PROGRAMMATIC NEED FOR CONTRACTOR WORK: Development of a simplified method for modeling colloids is identified as part of item 20-1402-761-405.1 in Revision 13 Change 0 of the CNWRA Operations Plans for the Repository Program for FY1999 under Contract NRC-02-97-009.

LIST OF ELIGIBLE CONSULTANTS CONSIDERED:

RATIONALE FOR SOLE/SINGLE SOURCE SELECTION: Dr. Ilya Partom is an experienced hydrologist and soil physicist from Israel who is temporarily residing in San Antonio while her husband, Dr. Yehuda Partom, is on a sabbatical assignment at SwRI. Original plans for the execution of the aforementioned task did not call for the use of a consultant; however, the recent loss of PA staff and the availability of Dr. Ilya Partom creates an opportunity that should be taken advantage of to meet our deliverables.

RATIONALE FOR NOT USING SwRI RESOURCES: There are no trained Ph.D. hydrologists at SwRI who have the capability to develop flow and transport models, other than those at the CNWRA who are already fully billed.

PROJECT NUMBER(S): 20-1402-761