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AGREEMENT BETWEEN
NNWSI Technical Project Officer, LOS ALAMOS NATIONAL LABORATORY
AND
NNWSI Technical Project Officer, UNITED STATES GEOLOGICAL SURVEY
REGARDING THE COOPERATIVE CONDUCT OF TRACER STUDIES

HYDROLOGY DOCUMENT NUMBER 610

- I. As participating agencies in the Nevada Nuclear Waste Storage Investigations, the Los Alamos National Laboratory (LANL) and the U. S. Geological Survey (USGS) are conducting mutually supportive tests at and near Yucca Mountain, Nevada. These tests, referred to as "tracer tests" contribute to meeting the following NNWSI programmatic responsibilities of the participants:
 - A. The USGS responsibilities under Work Breakdown Structure (WBS) 1.2.3.3, Hydrology, to define the pathways, mechanisms, fluxes, particle velocities, and coefficients of dispersion of ground-water flow at and in the vicinity of Yucca Mountain;
 - B. the LANL responsibilities under WBS 1.2.3.4, Geochemistry, to define the potential for movement of radionuclides in various physical and chemical forms from the sites of potential nuclear-waste emplacement at Yucca Mountain to environs that might be accessible to man.

- II. The Technical Project Officer (TPO) of LANL and the TPO of the USGS agree that successful and timely completion of these investigations require: (a) the joint use of existing and future boreholes penetrating the saturated ground-water system at and in the vicinity of Yucca Mountain, particularly at the site designated UE25c; (b) cooperation in the planning and design of tests, including their sequence, to assure that the information required by both agencies can be acquired in as timely a fashion as possible; (c) that data and other information resulting from the tests be freely exchanged between LANL and USGS when needed as part of the technical basis for evaluation or development of plans.

- III. In order to assure meeting of the program requirements stated in (II) above, the parties further agree to the following provisions:
 - A. The USGS is designated as the lead agency, and LANL as the supporting agency, for tests designed primarily to define hydrologic parameters, including hydraulic tests and the use of non-reactive (conservative) chemical or physical tracers to determine flow paths, particle velocities, and coefficients of dispersion.

ENCLOSURE

- B. LANL is designated as the lead agency, and USGS as the supporting agency, for tests designed primarily to determine the rates of movement (or of retardation) of radionuclides, including the use of reactive (non-conservative) tracers, or to evaluate the retarding effect of such potential phenomena as matrix diffusion.
- C. The responsibilities and rights of the lead agency include:
1. Assume full responsibility to plan, conduct, and analyze tests for which it is responsible.
 2. Assign and implement quality-assurance (QA) levels that are commensurate with the requirements of the supporting agency and the joint USGS/LANL objectives and responsibilities.
 3. Provide the supporting agency the opportunity to review and comment on plans, including QA level assignments and technical procedures.
 4. Inform the supporting agency of changes of plans or delays that could affect the overall testing effort.
 5. Make all data available to the supporting agency in a timely fashion. Data availability to the supporting agency will be scheduled as a Level-3 milestone by the originating agency.
 6. Have first right to publish or otherwise release the data, analysis (including modeling), and interpretations for tests for which it is responsible, subject to the conditions in Section III.E below.
 7. Provide the supporting agency the opportunity to review and comment on all manuscripts pertaining to the tracer studies and intended for release or publication.
- D. The responsibilities and rights of the supporting agency include:
1. Through ongoing dialogue and review of plans and previous results, provide to the lead agency ideas, concepts, or suggestions concerning planned tests.
 2. Review and comment on quality-level assignments and technical procedures for activities affecting the usefulness of test results that are important to other joint tests or analyses.
 3. May observe tests and, if mutually agreed upon, may directly support the lead agency's planning, testing, and analyses.

4. May not release data nor publish analyses or results prior to the release and publication by the lead agency, except as is provided in section III.E below.

E. Publication or other release by the originating agency of information needed for reference by the other in its publications will be scheduled as a level 2 (NNWSI Project Manager controlled) milestone. When the milestone is three or more months overdue, as referenced to the latest due date approved by the NNWSI Change Control Board, the using agency may use and present those unreleased data, but not interpretations, that are necessary to support its own analyses and interpretations. Such data will be referenced to the unpublished files of the originating agency and to the individual who provided the data. The originating agency or individuals are not obligated to reference the using agency in subsequent presentations or uses of the data.

IV. This agreement shall remain in effect until cancelled in writing by either of the parties hereto, their superiors, or their successors.


Date 4/3/86
William W. Dudley, Jr.
NNWSI Technical Project Officer
U. S. Geological Survey

Date _____
Donald T. Oakley
NNWSI Technical Project Officer
Los Alamos National Laboratory