



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

R.L. Friedenwald
Colonel, Corps of Engineers
Executive Director of Civil Works
~~HQDA (DAEN COE S6)~~ HQDA (DAEN-CWE-SG)
Department of the Army
Washington, DC 20314

Dear Colonel Friedenwald:

Subject: Interagency Agreement No. NRC-02-81-036 Entitled, "U.S. Army
Corps of Engineers Geotechnical Assistance"

Pursuant to the Economy Act of 1932, the Nuclear Regulatory Commission (NRC) and the U.S. Army Corps of Engineers (COE) desire to enter into an agreement whereby COE will assist the NRC by providing services for the project entitled above.

Article I - Statement of Work

A. Background

The Nuclear Regulatory Commission (NRC) is presently developing a regulatory program for geologic disposal of high-level radioactive wastes. To accomplish this program, the NRC must develop criteria, standards, and regulations for site suitability, facility design, construction, operation and decommissioning.

NRC, in its licensing process, will evaluate the information presented by the license applicant Department of Energy (DOE). It will be necessary that NRC's technical capability keep pace with DOE's waste disposal program so that NRC can provide an independent overview of the process in a regulatory context.

B. Work Required

The assistance of the U.S. Army Corps of Engineers (COE) is necessary to provide reviews of specialized studies and analyses submitted to the NRC staff by DOE. Under this program, the COE shall: 1) review site investigations and assess their adequacy; 2) review geological, geotechnical, and geohydrological research and development programs and reports in high-level radioactive waste (HLW) disposal; and 3) review DOE repository conceptual designs. Reports and information to be reviewed will be supplied by the NRC. In addition to review of the above programs, the COE shall provide pertinent supporting data gathered from previous COE investigations and projects.

Two areas of expertise are requested: the first is in the area of site investigations, explorations and characterization. This would require a background in regional exploration methods, instrumentation and testing,

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geophysical techniques, regional tectonics, surface and subsurface hydrology, and analytical methods and modeling. The second specialized area is associated with design and construction. This would require a knowledge of soils engineering for building foundations, backfill materials, excavation methods, rock mechanics, geohydrology, instrumentation, analysis and modeling.

C. Site Visits

Site visits will be performed in conjunction with NRC staff efforts and will be at various sites in different geologic media. Site visits by the COE during FY 1981 and FY 1982 are expected to include the following:

<u>Site</u>	<u>Geologic Medium</u>
Hanford Reservation, Pasco Basin, WA	Basalt
Gulf Coast Interior Salt Domes	
Vacherie Dome, LA	Domal Salt
Cypress Creek Dome, MS	Domal Salt
Richton Dome, MS	Domal Salt
Paradox Basin, UT	Bedded Salt
Palo Duro and Dalhart Basins, TX	Bedded Salt
Salina Region, MI, OH, NY	Bedded Salt
Yucca Mountain, Nevada Test Site (NTS), NV	Tuff

Site visits and investigations for other sites may be conducted over a regular period of time for two years. Site visits will be made by the COE staff to: 1) examine the geologic and hydrologic framework of the site; 2) observe site exploration activities including methods of exploration and testing; 3) examine representative rock cover; 4) observe test data collection and analysis being performed at the site; and 5) correlate report information and test data with "large-scale" exposures of the geologic medium at the site.

D. Project Review and Assessment

The COE shall assist the NRC in reviewing and assessing DOE technical progress and reports. The reports describe specific site investigations leading up to the selection of alternative sites for more detailed site characterization work including needed exploratory excavations and in situ testing. The COE shall also review Preconcept and Concept Design Reports in order to correlate design and site investigations. The type

of effort required under this task will include field trips to potential sites, review of technical reports, and attend meetings. Reports needed for these reviews will be supplied to the COE by the NRC.

Article II - Issuance of Task Orders Under This Agreement

A. Task Implementation

The issuance of task orders for each review or field activity will be discussed in advance and confirmed in writing by the NRC prior to the COE commencing work. Specific reporting requirements may vary with each review or field activity and shall be outlined for each separate item of work. Each task order will be signed by the Contracting Officer, and submitted to the Office of the Chief of Engineers (OCE) for implementation. Technical liaison between the COE and the NRC may then be transferred to the appropriate COE staff members at the working (field) level. Routine communications may take place between the NRC project officer and the appropriate COE designated staff member. Additional direction or guidance given to the staff or field office which effects the terms of the contract shall first be coordinated with the COE project officer at OCE.

Article III - Schedule

A. Project Planning

Within three weeks after the effective date of this agreement, an initial "kick-off" meeting will be held between the COE and NRC staff in Silver Spring, Maryland, NRC office. The proposed tasks to be initially assigned to the COE will be defined, and the OCE-NRC staff liaison procedures established.

B. Deliverable Reports

A formal report will be submitted to the NRC for each activity specifically performed by the COE. The report shall include conclusions and recommendations which may be acted upon at the discretion of NRC. The report shall be submitted 15 days after completion of the activity or at a time mutually agreed upon. An independent review of the FOA generated report shall be made prior to submittal to the NRC.

C. Report Distribution

The distribution of reports will be as follows:

	<u>Quarterly Progress Reports</u>	<u>Activity Reports</u>
Project Officer	10	20
Director, Office of NMSS (ATTN: Program Support Branch)	1	1
Director, Division of WM (ATTN: John B. Martin)	1	1
Contracting Officer (ATTN: Mary Jo Mattia)	1	1

D. Quarterly Progress Reports

The COE shall submit a quarterly report which summarizes: 1) the activity assigned, 2) the technical work performed and completed during the previous quarter, 3) FOA assigned and expenditures for each activity during the previous quarter. Quarterly reports shall also include such items as anticipated budget problem areas, their effects on other activities and the project schedule. The reports shall be due in the project officer's office by the fifteenth of the month following each quarter. The quarters shall be agreed upon to be compatible with COE accounting reports.

Article IV

A. Meetings and Travel

The COE shall meet with the NRC project office in Silver Spring, Maryland, on a quarterly basis to discuss the progress on the various activities. Both travel performed and anticipated to satisfy work requirements shall be reviewed on a quarterly basis.

All travel costs associated with this effort will be borne by NRC. The authorization of travel and preparation of necessary paperwork will be handled as a direct transaction between COE and their employees. However, all actual travel disbursements will be made direct by NRC to the employee or the common carrier.

B. Preparation of Orders

NRC will notify the employee of an upcoming trip. The employee, through the normal channels, will arrange the trip. COE will issue the orders, authorize the trip (in accordance with COE travel regulations) and issue the tickets (or provide the employee with a GTR), and provide the employee with ~~an advance if necessary.~~ LAW
COE NRC

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The GTR's issued must bear the following billing instructions: Payment will be made by:

U. S. Nuclear Regulatory Commission
Office of the Controller
Division of Accounting
Government and Commercial Accounts
Washington, D.C. 20555

and should carry the NRC appropriation symbol 31X0200 and reference the interagency agreement no. NRC-02-81-036.

At the time of issuance of the GTR, a buff copy must be sent to the NRC by COE to the above address to hold for retention until billed by the carrier.

In addition, COE should also send an advance file copy of each order after its issuance. The orders should also cite the above referenced agreement number.

C. Preparation of Vouchers

Upon completion of the trip, the COE employee will prepare the voucher in accordance with applicable COE regulations and submit to the normal payment office. COE audit staff will examine the voucher as they would in their usual voucher review procedure and then sign a statement to that effect.

The employee's original voucher, with attached receipts, airline tickets, and a copy of his orders, shall be immediately sent to the NRC at the above address for direct payment by NRC to the COE employee. If the employee issued his own GTR, the buff copy must accompany the voucher.

Please note: No COE employee is authorized to incur costs that will be billed directly to NRC other than a GTR. If additional expenses are required such as a rental car or typing or stenographic services, his orders should reflect this and he should be given a sufficient advance to cover the cost.

D. Advance of Funds and Recoupment

NRC will not issue any advance of funds to COE employees. ~~If an advance is required, COE will provide it and is responsible for collection of the advance from the employee.~~ NRC will pay the voucher to the employee in total without regard to any advance of funds issued by COE.

[Handwritten signature]
COE NRC

E. Payment

NRC will make payment directly to the COE employee at the address indicated on the voucher for travel costs incurred, as audited and approved by COE. Upon receipt of a completed SF 1113 from a common carrier for GTR's, NRC will make payment directly to the carrier using the NRC's normal payment procedures and forward the bill to GSA for post-audit of the transportation charges.

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Article V. Estimated Cost and Obligation of Funds

1. The estimated cost to the NRC exclusive of travel for efforts described is \$200,000.00. The estimated cost for travel is \$22,000.00 (\$7,000.00 for Fiscal Year 1981 and \$15,000.00 for Fiscal Year 1982).

2. Total funds currently available for payment and allotted to this agreement is \$200,000.00 exclusive of travel and chargeable to the following funds citation:

Appropriation Symbol:	31X0200
B&R	: 50-19-03-01
FIN	: B-6935-1

Total funds currently available for payment and allocated to this agreement for travel is \$7,000.00 for FY 1981 (ending September 30, 1981) chargeable to the following funds citation:

Appropriation Symbol:	31X0200.501
B&R	: 50-21
Subunit	: 50-36

Travel for FY 1982 will be subject to the availability of FY 1982 funds. Upon availability such funds will be provided by unilateral modification to the agreement signed by the Contracting Officer.

Article VI. Billing Instructions

COE, to receive reimbursement for costs incurred, shall submit invoices in accordance with ATTACHMENT II, Billing Instructions for NRC/COE Interagency Agreement, which is attached and made a part hereof.

Article VII Furnished Materials

The NRC will provide the COE with updated drafts of the procedural and technical rule(10 CFR 60) and supporting rationale as they are developed. The NRC will provide the COE a schedule ofr major events in the Department of Energy (DOE) selection of a geologic repository. The NRC will also provide the COE with pertinent reports for the accomplishment of each activity.

Article VIII Period of Performance

The period of performance covered by the work specified in the Statement of Work commences on the effective date of the agreement and continues through September 30, 1982.

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Article IX Project Officer

The following individual will represent the NRC as the Project Officer for this contract:

Lud Hartung -- 427-4177

The Project Officer is responsible for: (1) Monitoring the COE technical progress, including the surveillance and assessment of performance and recommending to the Contracting Officer changes in requirements; (2) interpreting the statement of work; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this agreement; and (5) assisting the agency in the resolution of technical problems encountered during performance. Within the purview of this authority, the representative is authorized to approve payment vouchers for supplies/services required under the agreement. The Contracting Officer is responsible for directing or negotiating any changes in terms, conditions, or amounts cited in the agreement.

For guidance from the Project Officer to the agency to be valid, it must: (1) be consistent with the description of work set forth in this agreement; (2) not constitute new assignment of work or change to the expressed terms, conditions, or specifications incorporated into this agreement; (3) not constitute a basis for an extension to the period of performance or delivery schedule; (4) not constitute a basis for any increase in the agreement price.

If the agency receives guidance from the Project Officer which it feels is not valid under the criteria cited above, the ~~COE~~ shall immediately notify the Project Officer. If the two are not able to resolve the question within 5 days, the agency shall notify the Contracting Officer.

If this agreement is acceptable to COE, please so indicate by signing in the space provided below and returning three (3) fully executed copies to me. The fourth fully executed copy is for your records. Any questions regarding this agreement should be directed to Mrs. Joyce Fields of my staff on (301) 427-4480.

ACCEPTED:

ACCEPTED:

COE

NRC

BY: [Signature]

BY: [Signature]

TITLE: Colonel, Corps of Engineers
Executive Director of Civil Works

TITLE: [Signature]
Contracting Officer

DATE: 20 May 1981

DATE: 5/20/81

EFFECTIVE DATE: 5/21/81

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