



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
 WASHINGTON, D.C. 20555-0001

Southwest Research Institute, Inc.  
 Attn: Sharon Rowe  
 6220 Culebra Road  
 PO Drawer 28510  
 San Antonio, TX 78228-0510

SEP 06 1996

Subject: Task Order No. 2 Entitled, "Annotated Outline of Ground-Water Chapter of Uranium Recovery Title I and II Reclamation Standard Review Plan", Under Contract NRC-02-96-004

Dear Ms. Rowe:

In accordance with the task order procedures of the subject contract, this letter definitizes Task Order No. 2. This effort shall be performed in accordance with the enclosed Statement of Work and the Contractor's technical proposal dated August 2, 1996 as revised on August 19 and 22, 1996. The effective date of this task order shall be September 10, 1996.

Task Order No. 2 shall be in effect from September 10, 1996 through December 3, 1996 with a cost ceiling of \$50,965.

\$25,000, which was obligated on the original contract document, is allocated to this task order. The remainder of the ceiling amount will be incrementally funded when funds are available.

The obligated amount shall, at no time, exceed the task order ceiling. When and if the amount(s) paid and payable to the Contractor hereunder shall equal the obligated amount, the Contractor shall not be obligated to continue performance of the work unless and until the Contracting Officer shall increase the amount obligated with respect to this task order. Any work undertaken by the Contractor in excess of the obligated amount specified above is done so at the Contractor's sole risk.

Accounting Data for Task Order No. 2 is as follows:

B&R No.:	65015233000	
JC No.:	J5147	
BOC:	252A	
Appn. No.:	31X0200	
Obligated:	\$0	(\$25,000 of the \$50,000 obligated on the original contract document is allocated for this task order.)

The following individuals are considered to be essential to the successful performance of the work hereunder: Patrick Mackin, Gordon Wittmeyer, and David Turner.

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The Contractor agrees that such personnel shall not be removed from the effort under the task order without compliance with Contract Clause H.1 Key Personnel. Further, any consultants that the Contractor plans to utilize under this task order must be approved by the NRC Contracting Officer before that consultant may begin work under this task order.

Your contacts during the course of this task order are:

Technical Matters: Donna Umbel  
Project Officer  
(301) 415-7819

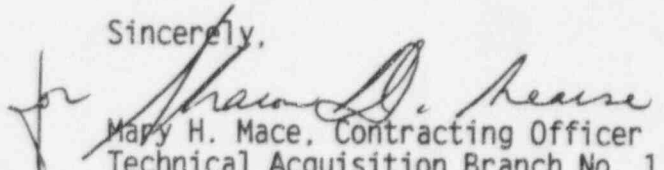
Contractual Matters: Barbara Meehan  
Contract Specialist  
(301) 415-6730

The issuance of Task Order No. 2 does not change any terms and conditions of the subject contract.

Please indicate your acceptance of Task Order No. 2 by having an official authorized to bind your organization, execute three (3) copies of this document in the space provided and return two (2) copies to the U.S. Nuclear Regulatory Commission, Attn: Mrs. Barbara Meehan, ADM/DC/TAB1, Mail Stop T-7I2, Washington, DC 20555. You should retain the third copy for your records.

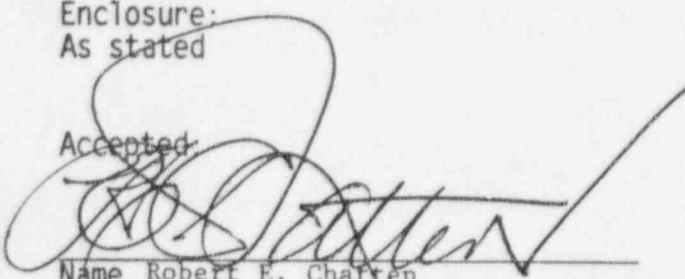
If you have any questions regarding this matter, please contact Mrs. Meehan on (301) 415-6730.

Sincerely,

  
Mary H. Mace, Contracting Officer  
Technical Acquisition Branch No. 1  
Division of Contracts  
Office of Administration

Enclosure:  
As stated

Accepted:

  
Name Robert E. Chatten

Director, Contracts

Title

September 16, 1996

Date

TASK ORDER NO. 02 TITLE: ANNOTATED OUTLINE OF GROUND-WATER CHAPTER OF  
URANIUM RECOVERY TITLE I AND II RECLAMATION  
STANDARD REVIEW PLAN

JOB CODE	J5147
NRC ISSUING OFFICE	NMSS
NRC PROJECT OFFICER	DONNA UMBEL, 415-7819
NRC TECHNICAL MONITOR	TERRY L. JOHNSON, 415-6658
DOCKET NUMBER:	NONE
TAC NUMBER:	L50094
FEE RECOVERABLE:	NO

## 1.0 Background

Before a conventional uranium processing site is restored a reclamation plan that describes planned restoration activities is reviewed by NRC staff. This is true for Title I facilities (U.S. Department of Energy) and Title II facilities (commercial). To help the staff review these documents the NRC staff has prepared a standard review plan for reclamation activities (U.S. NRC, 1985). However, this review plan needs to be updated with respect to ground-water restoration activities for both Title I and Title II sites.

## 2.0 Objective

The objective of this task shall be to prepare an annotated outline for the ground-water chapter of the reclamation standard review plan for Title I and Title II sites. Included in the outline shall be a review effort focused on ground-water corrective actions or alternate concentration limits.

## 3.0 Technical Qualifications Required

The contractor shall provide the services of geohydrologists, geochemists, and health physicists who have an understanding of ground-water movement, chemistry, and transport associated with uranium mill tailings disposal sites. Familiarity with the Nuclear Regulatory Commission regulatory process is required.

## 4.0 Completion Date

Approximately 3 months will be required to complete the task.

## 5.0 Scope of Work

1. The NRC staff will provide an orientation to relevant contractor staff on the NRC's approach to regulation of ground-water contamination at uranium mill tailing sites. The orientation will include a discussion of relevant guidance and regulations applicable to Title I and Title II ground-water contamination. The orientation will also include a tour with NRC personnel to an active Title I uranium mill tailings site in Texas.
2. Using the information gathered from the orientation and literature provided by the NRC, contractor staff shall provide a draft annotated outline based on the format used in the Reclamation Review Plan. This

draft shall be prepared relatively soon after the orientation meeting. NRC staff will review this draft, but while the NRC staff conducts it's review; work would not stop on preparation of the review plan. It is anticipated that the NRC staff will communicate it's review observations in active dialogue with the contractor staff and not through formal review transmittals.

3. As the annotated outline proceeds through "significant" revisions, contractor staff shall provide copies of the current draft to the NRC. It is not expected that these drafts shall be formal deliverables to the NRC, but shall be sent by FAX and e-mail, with the purpose of maintaining an active dialogue between contractor and NRC staff. NRC staff will review these drafts, but while the NRC staff conducts it's review; work would not stop on preparation of the review plan. It is anticipated that the NRC staff will communicate it's review observations in active dialogue with the contractor staff and not through formal review transmittals.
4. The contractor staff shall identify the regulatory and environmental concerns of ground-water contamination due to uranium mill tailings disposal along with regulatory solutions to these problems, by using appropriate information gathered from:
  - (a) NRC files.
  - (b) U.S. Environmental Protection Agency Regulations
  - (c) Texas state files.
  - (d) the public literature.
5. Using the information from the ongoing literature study the contractor shall prepare an outline that identifies those sections of the reclamation review plan chapter which shall address the appropriate parts of the NRC regulations. Again, work shall not stop on the remaining tasks, while the NRC reviews this product.
6. The contractor shall provide a final draft to NRC staff of the annotated outline describing the review criteria that falls within the sections of the review plan.
7. NRC staff reviews final draft.
8. Contractor staff prepare a final annotated outline.

## 6.0 Meeting and Travel

The orientation meeting will be held at the contractor's facility in San Antonio, Texas. This meeting will be included in the orientation meeting for Task 1. It will involve a field trip to the Falls City, Texas, Title I uranium mill tailings disposal site. It is anticipated that for contractor employees this would be a day trip.

Many NRC records, which cannot be readily provided, may have to be researched. Therefore, some trips to search the NRC records may be necessary. It is estimated 2 one person trips of one week duration to Washington D.C. may be required.

## 7.0 NRC-Furnished Materials

### NRC Regulatory Guides As Necessary

Taylor, J.M., 1994. Staff Efforts to Reduce Regulatory Impact on Uranium Recovery Licensees (describes performance based license) memorandum from James M. Taylor, Executive Director for Operations to the Chairman and Commissioners, August 1994.

Thaggard, Mark, 1991. Guidelines for NRC Staff GroundWater Protection Evaluation of DOE's UMTRCA Title I, Remedial Action Plans, Division of Low-Level Waste Management and Decommissioning, U.S. NRC.

U.S. NRC, 1979. Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment, Regulatory Guide 4.15, February 1979.

U.S. NRC, 1980. Radiological Effluent and Environmental Monitoring at Uranium Mills, Regulatory Guide 4.14, April 1980

U.S. NRC, 1980a. Operational Inspection and Surveillance of Embankment Retention Systems For Uranium Mill Tailings, Regulatory Guide 3.11.1, October, 1980.

U.S. NRC, 1982. Preparation of Environmental Reports For Uranium Mills, Regulatory Guide 3.8, Revision 2, October, 1982

U.S. NRC, 1985. Standard Review Plan For UMTRCA Title I Mill Tailings Remedial Action Plans.

U.S. NRC, 1993. Final Standard Review Plan For The Review and Remedial Action of Inactive Mill Tailings Sites Under Title 1 of the Uranium Mill Tailings Radiation Control Act, Revision 1, June, 1993.

U.S. NRC, 1995a. Environmental Assessment for ARCO Blue Water Mill Alternate Concentration Limit Application.

U.S. NRC, 1995b. Safety Evaluation Report for ARCO Blue Water Mill Alternate Concentration Limit Application.

U.S. NRC, 1996. 10 CFR Part 40 and Statements of Considerations



(covering several years).

#### NRC NUREGS

McKeon, T.J. and Nelson, R.W., 1984, Evaluation Methods for the Consequences of Below Water Table Mine Disposal of uranium Mill Tailings, NUREG/CR-3560.

Wardell, R.E., et al., 1983, In Situ Dewatering Techniques for Uranium Mill Tailings, NUREG/cr-3203

#### Other Relevant Technical Documents

U.S.A., 1978, Uranium Mill Tailings Radiation Control Act of 1978, Public Law 95-604.

U.S. EPA, 1982, Hazardous Waste Management System; Permitting Requirements for Land Disposal Facilities, (With Statement of Considerations) July 1982.

U.S. EPA, 1983, 40 CFR Part 192, Groundwater Standards for Remedial Actions at Inactive Uranium Processing Sites; Final Rule (along with Statement of Considerations)

U.S. EPA, 1989, Statistical Analysis of Ground-Water Monitoring Data at RCRA (Resource Conservation and Recovery Act) Facilities, Interim Final Guidance, February 1989.

U.S. EPA, 1992, Statistical Training Course for Ground-Water Monitoring Data Analysis.

U.S. DOE, 1993, Technical Approach to Groundwater Restoration, Uranium Mill Tailings Remedial Action Project, November 1993.

U.S. DOE, 1995, Decommissioning of U.S. Uranium Production Facilities, DOE-EIA-0592, February 1995.

Wyoming Department of Environmental Quality, 1994, Wyoming Department of Environmental Quality Land Quality Division guideline No. 4. *In-situ* Mining.

## 8.0 Schedule

The following schedule of the staff time required is based on estimates of time intervals to accomplish this task. The time required to obtain responses from DOE or management approval of various phases is estimated under the response column.

### Calendar Time To Accomplish Task

	Contractor Staff (Weeks)	Response (Weeks)	Deliverable(s) (Weeks from Contract Award)
Review the material and prepare for orientation meeting.	1		
Orientation meeting and field trip	1		
Prepare initial draft of outline based on Reclamation Plan.	1		3
Literature research - Identification of regulatory and environmental concerns	4		
Prepare draft of outline relating outline to appropriate regulations.	1		6
Final Draft	2		9
NRC Staff Review		2	
Final Outline	1		12
Final Draft Prepared	2		9
Final Draft NRC Staff Review		2	
Final Draft	1		12

## 9.0 Technical Direction

Technical instructions may be issued from time to time during the duration of this task. Technical instructions shall not constitute new assignments of work or changes of such nature as to justify an adjustment in cost or period of performance. Directions for changes in the scope of work, cost, or period of performance shall be issued by the NRC Contracting Officer.