

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

BPA NO.

1. DATE OF ORDER 06/05/09		2. CONTRACT NO. (If any) NRC-41-08-004		6. SHIP TO:	
3. ORDER NO. TO 006		MODIFICATION NO.		a. NAME OF CONSIGNEE U.S. Nuclear Regulatory Commission ATTN: James Webb, 301-415-6252	
4. REQUISITION/REFERENCE NO. NRC-41-08-004		b. STREET ADDRESS Mail Stop TWB-01-B10M		c. CITY Washinton	
5. ISSUING OFFICE (Address correspondence to) U.S. Nuclear Regulatory Commission Division of Contracts Attn: Valerie Whipple Mail Stop: TWB-01-B10M Washington, DC 20555		d. STATE DC		e. ZIP CODE 20555	
7. TO:		f. SHIP VIA		8. TYPE OF ORDER	
a. NAME OF CONTRACTOR SOUTHWEST RESEARCH INSTITUTE INC		b. COMPANY NAME		<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 6220 CULEBRA RD		d. CITY SAN ANTONIO		Reference your _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
e. STATE TX		f. ZIP CODE 782385100		Except for billing instructions on the reverse, this delivery/task order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
9. ACCOUNTING AND APPROPRIATION DATA JOB CODE: F1070 B & R NUMBER: 95515355226 BOC: 252A APPN: 31X0200 \$242,423 FFS: 5509R063 & 5509R93 & 5509R125		10. REQUISITIONING OFFICE NMS NMSS/DWMEP/EPAB		12. F.O.B. POINT Destination	
11. BUSINESS CLASSIFICATION (Check appropriate box(es))		13. PLACE OF		14. GOVERNMENT B/L NO.	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. EMERGING SMALL BUSINESS <input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED		a. INSPECTION Rockville, MD 20852		b. ACCEPTANCE Rockville, MD 20852	
15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 12/18/09		16. DISCOUNT TERMS NET 30		17. SCHEDULE (See reverse for Rejections)	

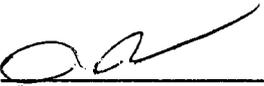
ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	<p>Contractor shall provide services in accordance with the attached Statement of Work entitled "Revision of Standard Review Plan for In Situ Leach Uranium Extraction License Applications. NUREG-1569."</p> <p>The total estimated (ceiling) is \$242,423 and the obligated amount is \$242,423. Any work undertaken by the Contractor in excess of the obligated amount specified above is done so at the Contractor's sole risk.</p> <p>NRC PROJECT OFFICER: Tira Patterson 301-415-7808</p> <p>PERIOD OF PERFORMANCE: Date of Award - 12/18/2009</p> <p>DUNS: 007936842</p>					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages) 17(i) GRAND TOTAL
	21. MAIL INVOICE TO:						
	a. NAME U.S. Nuclear Regulatory Commission NRCPayments@nrc.gov						
	b. STREET ADDRESS (or P.O. Box) Attn: Fiscal Services Branch - D2770, 7301 W. Mansfield Avenue						
c. CITY Denver		d. STATE CO		e. ZIP CODE 80235-2230		\$242,423 (ceiling)	

22. UNITED STATES OF AMERICA BY (Signature) 	23. NAME (Typed) Valerie M. Whipple Contracting Officer TITLE: CONTRACTING/ORDERING OFFICER
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Please indicate your acceptance of this order by having an official who is authorized to bind your organization, execute this document in the space provided below.

ACCEPTED:

Signature:  _____

Name: R. B. Kalmbach

Title: Executive Director, Contracts

Date: June 17, 2009

List of Attachments

1. Statement of Work

Form 347 goes here

A. SEAT BELTS

Contractors, subcontractors, and grantees, are encouraged to adopt and enforce on-the-job seat belt policies and program for their employees when operating company-owned, rented, or personally owned vehicles.

B. CONSIDERATION AND OBLIGATION --COST PLUS FIXED FEE (JUN 1988)

- (a) The total estimated cost to the Government for full performance of this contract is **\$242,423**, of which the sum of **\$224,752** represents the estimated reimbursable costs, and of which **\$17,672** represents the fixed fee.
- (b) There shall be no adjustment in the amount of the Contractor's fixed fee by reason of differences between any estimate of cost for performance of the work under this contract and the actual cost for performance of that work.
- (c) The amount presently obligated with respect to this order is **\$242,423**, of which **\$224,752** represents the estimated reimbursable costs, and of which **\$17,672** represents the fixed fee. The Contractor shall not be obligated to incur costs above this ceiling/obligated amount unless and until the Contracting Officer shall increase the amount obligated. Any work undertaken by the Contractor in excess of the obligated amount specified above is done so at the Contractor's sole risk.

C. PERIOD OF PERFORMANCE

The period of performance of this order shall be **date of award through December 18, 2009**.

D. WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES (JULY 2006)

(a) The U.S. Nuclear Regulatory Commission (NRC) contractor and its subcontractor are subject to the Whistleblower Employee Protection public law provisions as codified at 42 U.S.C. 5851. NRC contractor(s) and subcontractor(s) shall comply with the requirements of this Whistleblower Employee Protection law, and the implementing regulations of the NRC and the Department of Labor (DOL). See, for example, DOL Procedures on Handling Complaints at 29 C.F.R. Part 24 concerning the employer obligations, prohibited acts, DOL procedures and the requirement for prominent posting of notice of Employee Rights at Appendix A to Part 24.

(b) Under this Whistleblower Employee Protection law, as implemented by regulations, NRC contractor and subcontractor employees are protected from discharge, reprisal, threats, intimidation, coercion, blacklisting or other employment discrimination practices with respect to compensation, terms, conditions or privileges of their employment because the contractor or subcontractor employee(s) has provided notice to the

employer, refused to engage in unlawful practices, assisted in proceedings or testified on activities concerning alleged violations of the Atomic Energy Act of 1954 (as amended) and the Energy Reorganization Act of 1974 (as amended).

(c) The contractor shall insert this or the substance of this clause in any subcontracts involving work performed under this contract.

E. 2052.215-70 KEY PERSONNEL (JAN 1993)

(a) The following individuals are considered to be essential to the successful performance of the work hereunder:

Name

Position

[REDACTED]

[REDACTED]

The contractor agrees that personnel may not be removed from the contract work or replaced without compliance with paragraphs (b) and (c) of this section.

- (b) If one or more of the key personnel, for whatever reason, becomes, or is expected to become, unavailable for work under this contract for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the contractor shall immediately notify the contracting officer and shall, subject to the concurrence of the contracting officer, promptly replace the personnel with personnel of at least substantially equal ability and qualifications.
- (c) Each request for approval of substitutions must be in writing and contain a detailed explanation of the circumstances necessitating the proposed substitutions. The request must also contain a complete resume for the proposed substitute and other information requested or needed by the contracting officer to evaluate the proposed substitution. The contracting officer and the project officer shall evaluate the contractor's request and the contracting officer shall promptly notify the contractor of his or her decision in writing.
- (d) If the contracting officer determines that suitable and timely replacement of key personnel who have been reassigned, terminated, or have otherwise become unavailable for the contract work is not reasonably forthcoming, or that the resultant reduction of productive effort would be so substantial as to impair the successful completion of the contract or the service order, the contract may be terminated by the contracting officer for default or for the convenience of the Government, as appropriate. If the contracting officer finds the contractor at fault for the condition, the contract price or fixed fee

may be equitably adjusted downward to compensate the Government for any resultant delay, loss, or damage.

STATEMENT OF WORK

TASK TITLE: REVISION OF STANDARD REVIEW PLAN FOR IN SITU LEACH URANIUM EXTRACTION LICENSE APPLICATIONS, NUREG-1569

JOB CODE: F1070

TASK ORDER NUMBER: Six (6)

B&R NUMBER: 95515355226

NRC ISSUING OFFICE: FSME

NRC PROJECT OFFICER (PO): Tira Patterson (301) 415-7808

NRC TECHNICAL PROJECT MANAGER (TPM): Jim Webb (301) 415-6252

NRC TECHNICAL MONITOR (TM): Steve Cohen (301) 415-7182

FEE RECOVERABLE: No

TAC NUMBER: J21090

DOCKET NUMBER: Not Applicable

1.0 Background

The U.S. Nuclear Regulatory Commission (NRC) staff is developing proposed amendments to Appendix A in 10 CFR Part 40 to clarify the regulations related to groundwater protection at uranium *in situ* recovery (ISR) facilities in order to improve regulatory efficiency. The proposed rule would add a new Criterion 14 to Appendix A that would be specific to the groundwater aspects of the licensing, operation, and closure of an ISR facility. Criterion 14 would contain requirements that the staff has determined are necessary to clarify requirements for groundwater protection in the well-field production zones and throughout ISR sites. Additionally, the rulemaking would revise Criterion 5B(5)(b) to reference available EPA constituent maximum concentration limits (MCLs) for drinking water in EPA's regulations in 40 CFR Part 141. The staff plans to publish a proposed rule for public comment in the spring of 2009.

The staff plans to support the rulemaking effort by updating the guidance related to groundwater protection in NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications." NUREG-1569 is currently structured as an integrated review plan for the conduct of both the technical (safety) and environmental reviews of a license application or renewal or amendment of an existing license. Further, NUREG-1569 currently recommends that the Environmental Report required as a part of the application be integrated into the overall application, consistent with the format in NUREG-1569. However, in the interest of more efficient technical and environmental reviews of an application, the staff has been requesting separate Environmental Reports for uranium in situ recovery (ISR) license applications, as specified in 10 CFR Part 51.45. Thus, in addition to those changes to the groundwater protection sections in NUREG-1569 deemed necessary to support the Appendix A rulemaking effort, the staff plans to make significant revisions to the entire standard review plan to render a guidance document which focuses solely on the conduct of the technical or safety review of the license application.

2.0 Objective

The objective of this task is to seek assistance from Center for Nuclear Waste Regulatory Analyses (CNWRA) staff in the revision of NUREG-1569 to incorporate guidance in support of

the ongoing Appendix A rulemaking effort and to incorporate other desired changes to produce a more streamlined and effective standard review plan which focuses solely on the detailed technical review of license applications for ISR facilities. The product of this task will be a complete draft revision of NUREG-1569.

3.0 Work Requirements/Scope of Work

The CNWRA staff shall revise NUREG-1569 to develop a standard review plan for the detailed technical (safety) review of license applications for ISR facilities. This action will include modification of the format and content of NUREG-1569 to remove the sections and/or content in the document related solely to the environmental review of license applications, recognizing that many sections in the document apply to both the technical and environmental reviews. The revised format and content should be reflective of the product that will be prepared by the NRC staff from the conduct of the technical review which will be either a technical evaluation report (TER) or safety evaluation report (SER). Revision of NUREG-1569 shall include a review of the Appendices A through E to determine if any updates, revisions, or changes are needed.

CNWRA staff will review the proposed amendments to Appendix A and develop recommendations for those aspects or elements of the proposed rule which would benefit from supporting guidance in NUREG-1569. CNWRA staff will review the content in NUREG-1569 to determine if new guidance is needed or if guidance exists which is adequate or requires modification or deletion. Section 6.1 (Plans and Schedules for Ground-Water quality Restoration) should include an expanded discussion of changes in restoration standards in the Appendix A rulemaking and guidance on alternate concentration limit applications if the production zone cannot be restored to background or maximum contaminate levels. Known updates to the guidance from Appendix A amendments will include revisions to: (1) Section 6.1.3, items (4) (a), (b), and (c), to reflect the revised restoration standards; 2) Section 6.1.3, item (4), to reflect that if statistical well-field averaging is applied, the applicant must show that adjacent aquifers are not endangered; (3) Section 6.1.3, item (5), to address changes to post restoration stability and performance monitoring; and (4) Section 6.1.3, item (13), to address Class I deep well injection operation procedures. Any other recommendations for guidance or content changes related to the Appendix A rulemaking should be reflected in the revised format and content of NUREG-1569.

Revised NUREG-1569 should have a section for "accident analysis" at ISR facilities. This section should address the spectrum of potential accidents from trivial to serious, including potential fires, and the measures implemented to prevent or mitigate accidents. Emergency plans and training for coping with accidents and the emergency response program should also be addressed.

Several sections of NUREG-1569 refer to outdated terminology (total annual whole body and organ doses) from old 10 CFR Part 20. Revised NUREG-1569 should incorporate the appropriate terminology (total effective dose equivalent) from current Part 20 requirements where it is applicable. Also, in at least one place (Section 6.3.4), the descriptions of the regulatory citations (10 CFR 40.32(c) and 10 CFR 40.42(g)(4)) are transposed. CNWRA staff should confirm the accuracy of all regulatory citations in revised NUREG-1569. CNWRA staff should also be aware that NRC has revised, or is currently revising, many of the Agency's regulatory guides. As such, CNWRA staff should ensure that any references to regulatory guides in revised NUREG-1569 refer to the latest revisions of the guides (e.g., Regulatory Guide 3.11, Rev. 3, Design, Construction, and Inspection of Embankment Retention Systems at Uranium Recovery Facilities, November 2008).

In a section addressing "site characterization" for a proposed ISR facility, revised NUREG-1569 should include discussion of the site "background water quality" as well as the "background radiological characteristics" in soil, air, surface water, and groundwater. CNWRA staff should also update Section 2.7 (Hydrology) of NUREG-1569 to include specific guidance on characterization of the surficial aquifer(s) in the license area. The surficial aquifer may be subject to contamination from surface spills, pipes leaks, well failure leaks, evaporation pond leaks, and spray irrigation from ISR operations. In addition to the impact to the groundwater, this contamination may move through the surficial aquifer to surface water. Revised NUREG-1569 should request a description of the surficial aquifer(s) including aquifer lithology, maps of the depth to water, the ground water flow magnitude and direction, interactions with surface water features, and the background chemistry. Guidance should also address the applicant's program to provide monitoring of the surficial aquifer to detect potential contamination and describe methods for cleanup.

4.0 Level of Effort

The estimated level of effort for this task is about 1500 staff hours.

5.0 Technical Qualifications Required

The CNWRA shall provide the services of appropriate staff, including consultants and subcontractors, as necessary, with primary expertise in health physics, hydrogeology, chemical/process engineering, geotechnical engineering, meteorology, geology, and seismology for the development of revised NUREG-1569.

6.0 Meetings and Travel

No travel will be required for this task. CNWRA staff will participate in conference, videoconference, or telephone calls, as needed, to address and resolve issues or questions that may arise during the development of revised NUREG-1569.

7.0 NRC Furnished Material

NRC will provide the following to CNWRA staff: One copy of NUREG-1569, published June 2003. A copy of the proposed amendments to Appendix A of 10 CFR part 40 will be provided to the CNWRA when the proposed rule is published for public comment. Additionally, to facilitate the development of the table of contents for revised NUREG-1569, a copy of a general table of contents for the SER resulting from the review of a license application for an ISR facility will be provided.

8.0 Period of Performance

The period of performance of this task shall be 5.5 months from date of task order award.

9.0 Schedule/Deliverables

The following schedule of the CNWRA staff time required is based on estimates of time intervals to accomplish this task.

Task

Schedule

Develop preliminary annotated draft table of contents for revised NUREG-1569.

3 weeks from task initiation

Develop final annotated draft table of contents.

4 weeks from task initiation

Prepare preliminary draft revised NUREG-1569.

18 weeks from task initiation

Discuss draft NUREG-1569 with NRC and prepare final draft NUREG-1569.

22 weeks from task initiation

10.0 Technical Direction

Steve Cohen is the designated NRC TM for this procurement. Tira Patterson is the designated NRC PO. Technical instructions may be provided to the CNWRA staff by the TM during the duration of this requested task. Technical instructions shall not constitute new assignments of work or changes of such a nature as to justify an adjustment in cost or period of performance. Directions, if any, for changes in scope of work, cost, or period of performance will be issued by the NRC Contracting Officer.

11.0 Technical Reports

Technical reports for this task shall be submitted via electronic mail with electronic attachments consistent with the word processor in use at the NRC (WORD) or in portable document format (pdf), as appropriate. The CNWRA shall also provide one paper copy of each technical report to the NRC TM and PO.

12.0 Financial and Technical Status Reports

The CNWRA shall submit periodic technical and financial reports in accordance with the contract. The estimated staff effort should be recorded at the subtask level. The work accomplished and the degree of completeness should also be tracked by subtask. The reports are due within 20 calendar days after the end of the report period (i.e., each four week period). The TM shall receive two copies of the periodic status report, and the PO shall receive one copy. See the contract for further distribution requirements.