AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF PAGES
5001R064	1	2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
9	3/23/2001	NMS-98-007 2/23/01	

6. ISSUED BY CODE

U.S. Nuclear Regulatory Commission
Division of Contracts and Property Mgt.
Attn: T-7-I-2
Contract Management Branch 2
Washington DC 20555

7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78228-0510
Wesley C. Patrick, President, CNWRA
210-522-5158, TIN 74-1070544

CODE FACILITY CODE

(X)	
	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
	10A. MODIFICATION OF CONTRACT/ORDER NO. NRC-02-98-007
X	10B. DATED (SEE ITEM 13) 06-08-1998

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment of each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
B&R 15015303120 JC J5371 BOC 252A 31X0200
Obligate: $152,000

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: 41 U.S.C. 253 (c) (3)
	D. OTHER (Specify type of modification and authority) Mutual Agreement of the Parties

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Please see attached page.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
R.B. Kalmbach, Director, Contracts	Barbara D. Meehan
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED 03-27-2001
16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 03-23-2001

STANDARD FORM 30 (REV. 10-83)

TEMPLATE - ADM 001

ADM 02

This purpose of this modification is to increase the ceiling amount of this contract by $138,484, to obligate funding in the amount of $152,000, to add the statement of work for task 3 to Section C, and to extend the period of performance through February 15, 2002. Accordingly, the contract is modified as follows:

1. Section B.3, "Consideration and Obligation - Cost Plus Fixed Fee", subparagraphs "a" and "c" are revised to read as follows:

"(a) The total estimated cost to the Government for full performance of this contract is $346,789, of which the sum of $312,405 represents the estimated reimbursable costs, $9,391 represents the cost of facilities capital, and $24,993 represents the fixed fee."

"(c) The amount currently obligated by the Government with respect to this contract is $340,596.00. Of this amount $315,367 represents the estimated costs and $25,229 represents fee."

2. Section C, "Description/Specifications/Statement of Work"

The attached statement of work for task 3 is added to Section C.2, "Task Descriptions."

3. Section F.7, "Duration of Contract Period", is revised to read as follows:

"This contract shall commence on the date of the contract award and will expire on February 15, 2002."

All other terms and conditions of the contract remain the same.

A summary of obligations for this contract is given below:

Job Code J5235
Total FY98 obligation amount $46,000
Total FY99 obligation amount $67,596
Total FY99 deobligation amount $20,000
Cumulative total of NRC obligations for JC5235 $93,596.

Job Code J5302
Total FY00 obligation amount $95,000
Cumulative total of NRC obligations for JC5302 $95,000.

Job Code J5371
Total FY01 obligation amount $152,000.

This modification obligates $152,000 in FY01 funds.

NRC-02-98-007
STATEMENT OF WORK
TASK 3
THE WEST VALLEY DEMONSTRATION PROJECT
GIS INTEGRATION AND MODELING

Background

The Nuclear Regulatory Commission (NRC) is participating as a cooperating agency in the development of the Environmental Impact Statement (EIS) for the decommissioning of the West Valley Demonstration Project (WVDP) and West Valley site. As a cooperating agency, NRC reviews and comments on drafts of the Decommissioning EIS, supporting assessments, and procedures. Most of NRC's effort over the next several years at West Valley will focus on the development and implementation planning of the Decommissioning EIS. However, U.S. Department of Energy (DOE) will be developing a Waste Management and Facilities Decontamination EIS, which NRC will review and comment. This will be referred to as EIS#1. The Decommissioning EIS will be referred to as EIS#2. The scope of EIS #1 includes the decontamination of facilities, structures, and equipment that are currently contaminated with radioactive materials and will address removal of certain site wastes. EIS #2 will address decommissioning, site closure, and long-term monitoring. The documents to be provided to the Center for Nuclear Waste and Regulatory Analyses (CNWRA) from NRC, as specified in the subtasks below, are dependent upon receipt of the documents from DOE.

NRC has developed a geographic information system (GIS) and associated three-dimensional (3D) modeling capability for the West Valley Site. The GIS and 3D modeling capability development was based on the requirements from the National Environmental Policy Act (NEPA) to facilitate NRC's role as a cooperating agency. The GIS/3D data visualization/modeling framework will be used by NRC to assess the preferred alternative and other alternatives, in the West Valley EIS documentation to be issued by the Department of Energy (DOE).

Objectives/Scope of Work

Objectives:

- Use the GIS/3D data visualization/modeling framework to independently review, verify, and assess decontamination and decommissioning activities at the WVDP from a health and safety perspective and to determine whether DOE EIS approach can adequately meet the NRC prescribed Decommissioning criteria for the WVDP and West Valley Site.

- Use the GIS/3D capabilities to display existing site information, as well as visualizing, analyzing, and interpreting changes to conditions at the site that may be predicted by NRC modeling activities. Within the framework, these changes can be readily compared to those predicted by the DOE.

- Use the GIS/3D data visualization/modeling framework as a data archive and educational resource for the site.

- Determine the degree of conservatism in the DOE modeling assumptions and results. Items of interest are to get a through understanding of how DOE models engineered barriers, erosion, and synergetic effects with respect to partial site release.

Scope:

Subtask A: Fine- tune the GIS/3D framework based on the needs of the NRC EIS reviewers. Specifically,

-Incorporate additional manmade structures, such as the SDA into the database, as directed by the NRC Technical Monitor (TM).
-Add more detail to the pull down menus as directed by the NRC TM.

Subtask B: Incorporate DOE EIS Documentation/data/evaluations results into the GIS/3D framework. By the end of February 2001, NRC expects to receive EIS documentation in the following areas covering Waste Management Area (WMA) 3 (HLW Tanks and Process Building) and some other general areas of the site, such as the NDA. This information will be in the form of EIS appendices from DOE as follows :

-Hydrology/GW flow
-Conceptual approach to performance assessment
- Dose Modeling- Models to use to calculate dose in the present, near term and long term for a deterministic and probabalistic approach. Issues will deal with how to address engineered barriers and synergetic effects with respect to partial site release. The focus will be on the High Level Waste Tanks and the Process Building.
-Erosion Studies

Evaluate the GIS/3D modeling framework results and compare them against the DOE's results.

Subtask C: Erosion Modeling. Review and evaluate the DOE's approach on erosion modeling. Perform modeling using the other erosion modeling codes available that DOE has not used such as CHILD or other code as agreed upon by the technical/program manager. Explore the shortcomings identified during the review of the SEBERIA code. Evaluate and compare the results with the DOE's results.

Subtask D: Partial Site Release Modeling: Review the work that the NRC has done in the area of partial site release (Reactor Group and Performance Assessment Group) to date. Determine whether the current NRC concepts apply to the DOE West Valley Demonstration Project Environmental Impact Statement (EIS) alternative strategies and if additional development is needed so that NRC will be able to sufficiently address partial site release at West Valley.

Using the most current source term data/inventory data (Either the DOE Year 2000 Site Inventories or the DOE updated EIS site source term evaluations will be used as determined by the TM) determine the total effective dose equivalent (TEDE) to the average member of the critical group from the NRC-licensed Disposal Area (NDA) considering synergistic dose effects. Specifically consider the effects of the State-licensed Disposal Area (SDA) that is to remain and WMA3 site closure scenarios.

MEETINGS AND TRAVEL

Two two-person trips to NRC Headquarters by CNWRA personnel may be necessary so that the principal CNWRA technical personnel working on this task can consult with the NRC Program Element Manager to gather related information and talk to technical experts who are reviewing the DOE West Valley EIS Appendices and those working on partial site release issues for the NRC.

PRODUCTS/SCHEDULES

Milestones	Due Date
Task 3, Subtask A - 1. Summary report of changes made to the NRC GIS/3D Modeling Framework. 2. Electronic update of GIS/3D Modeling Framework database.	1 and 2: 4 weeks from start of Subtask A.
Task 3, Subtask B - 1. Electronic integration the DOE EIS hydrology/GW flow model results, WMA3 model results, erosion studies modeling results into the NRC's GIS/3D modeling framework with a informal presentation/briefing to NRC staff. 2. An electronic backup copy of results. 3. Summary report of the interpretation of the 3D modeling results with supporting analyses. 4. Briefing - Presentation of results	1 and 2: 4 weeks from CNWRA's receipt of the DOE appendices as described in the scope of work. 3. 6 weeks from CNWRA's receipt of the DOE appendices as described in the scope of work. 4. TBD by TM.
Task 3, Subtask C -1. Erosion modeling report summary addressing the degree of conservatism in the DOE erosion modeling results. 2. Erosion modeling data files and supporting analyses with electronic back up copy.	1 and 2: 8 weeks from CNWRA's receipt of the Erosion Studies appendix as described in the scope of work.
Task 3, Subtask D - 1. Summary report of the adequacy of the current partial site release NRC guidelines with respect to the complex nature of the West Valley site. 2. Draft Summary report with supporting analyses of the NDA dose modeling results. Include a discussion of the potential synergistic dose effects involved in the partial site release of the West Valley site. Specifically address the effects of the State-licensed Disposal Area (SDA) that is to remain and WMA3 site closure scenarios. Provide recommendations on how to determine the adequacy of partial site release evaluations involving the NDA. 3. Final Summary Report with supporting analyses of the NDA dose modeling results. Provide an electronic copy of the report and all supporting evaluations.	1. April 15, 2001 2. June 30, 2001 3. August 31, 2001

FY01 ESTIMATED LEVEL OF EFFORT (Refer to Contractor's Proposal)

Task 3:

Subtask A:	2.0 staff weeks
Subtask B:	6.0 staff weeks
Subtask C:	4.0 staff weeks
Subtask D:	11.0 staff weeks
Travel:	1.0 staff week
Task 3 Total	24 staff weeks

Period of Performance: This contract will be effective from the date of award through February 15, 2002.