



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

NOV 02 2000

MANDEX, Inc.  
Attn: Lawrence H. Hyde, III  
Dir. of Administration  
12500 Fair Lakes Circle, Suite 300  
Fairfax, VA 22033-3804

SUBJECT: MODIFICATION NO. 1 TO TASK ORDER NO. 2 ENTITLED, "SUPPORT OF  
DWM GIS AND 3D MODELING EFFORTS IN AREAS OTHER THAN YUCCA  
MOUNTAIN," UNDER CONTRACT NO. NRC-02-00-008

Dear Mr. Hyde:

This Modification No. 1 to Task Order No. 2: 1) extends the period of performance through November 15, 2001 in accordance with the attached Statement of Work; 2) increases the ceiling amount by \$239,311.00 from \$96,487.00 to \$335,798.00; and 3) provides incremental funding in the amount of \$10,000.00, thereby increasing the obligated amount from \$40,000.00 to \$50,000.00.

Task Order No. 2 shall be in effect from May 23, 2000 through November 15, 2001, with a ceiling of \$335,798.00. The amount of \$309,206.00 represents the total estimated reimbursable costs for the services to be performed as stated in the enclosed Statement of Work. The amount of \$26,592.00 represents the total fixed fee.

This obligated amount may be unilaterally increased from time to time by the Contracting Officer by written modification to this task order. 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. The Contractor shall comply with the provisions of 52.232-22 - Limitation of Funds for this incrementally funded task order.

Accounting Data for Modification No. 1 to Task Order No. 2 is as follows:

B&R No.:	15015303135
Job Code No.:	J5300
BOC:	252A
Appropriation No.:	31X0200
OBLIGATED AMOUNT:	\$10,000.00
FFS COMMITMENT NO.:	5001R014

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Please indicate your acceptance of this Modification No. 1 to Task Order No. 2 by having an official, authorized to bind your organization, execute three copies of this document in the space provided and return two copies to the Contract Administrator. You should retain the third copy for your records.

If you have any questions regarding this matter, please contact Yvette Brown, Contract Administrator, on (301) 415-6507.

Sincerely,

*Sharon D. Stewart*  
Sharon D. Stewart, Contracting Officer  
Contract Management Branch No. 2  
Division of Contracts and Property Management  
Office of Administration

Enclosure:  
As stated

ACCEPTED:

NAME: *Sumner H. [Signature]*  
TITLE: *Director of Administration*  
DATE: *2 November 2000*

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STATEMENT OF WORK  
TASK ORDER NO. 002  
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1. TITLE:

Support of DWM GIS and 3D Modeling Efforts in Areas Other than Yucca Mountain

2. SCOPE OF WORK:

This Task shall involve interaction with personnel from CNWRA, licensees, and DWM staff for the development of GIS and 3D Models to support licensing activities other than those covered by Yucca Mountain. These include, but are not limited to: facility decommissioning, low level waste activities, and potential high level waste activities other than Yucca Mountain. (This scope expands the current Task 2 to include activities from Task 3 and 4.) This will be a continuing multi-year designed to accomplish the items listed below:

**Subtask 2.1: Maintain Databases of Models:** Provide continuous support to the CRADAL Manager and DWM staff to store the various GIS and 3D models that have previously been developed in support of licensing activities related to any facility being reviewed. Contractor personnel shall assure that all models are appropriately labeled as to source, time of development and coverage. Contractor personnel shall also routinely work with the NRC Project Officer to assure that original copies of models and software being used and system backups are secured in the CRADAL safe to provide disaster recovery should data be compromised during use.

**Subtask 2.2 Development of New Models:** The contractor shall meet with the NRC Project Officer and NRC Project Managers assigned to specific licensing facilities to develop a specific plan for geological, hydrological, and/or radiological modeling that can be completed prior to November 15, 2001. Based on the input from the NRC Project Officer, the contractor shall develop and test models using Earthvision, ERDAS, ArcInfo, and/or ArcView, as appropriate. Final models shall be presented to DWM staff via a LCD projection presentation. Following this presentation, contractor shall prepare a final report detailing the assumptions and limitations of the model(s) developed and provide recommendations as to possible future sampling points which might enhance the model's accuracy.

**Subtask 2.3 Maintaining Level of Expertise:** The contractor shall arrange for the scheduling of continuing education classes in Earthvision, ArcInfo, ArcView, or ERDAS, as appropriate, to maintain the skill levels of staff assigned to this project.

**Subtask 2.4 Purchase of IT Equipment:** As directed by the Contract Officer, the contractor shall arrange for the purchase of hardware and software component in support of CRADAL. If any of the items requested are available for purchase off the GSA schedule, the contractor need only provide a single source for the product, its price, and expected time for delivery following the placement of an order. If the item is not on the GSA schedule, the contractor must provide three independent quotes for the item

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along with estimated delivery schedules. Items shall not be purchased until the quotes have been reviewed by the NRC and the actual purchase is authorized by the Contract Officer.

3. DELIVERABLES:

**Subtask 2.2 Model Development:** The contractor shall complete each model development task within 180 days of the initiation of the model, unless an extension is granted by the Project Officer. No later than 20 days following completion of the development of any new model, the contractor shall deliver a final report on the model developed, the assumptions used, and the recommendations for future work

**Subtask 2.3 Maintaining Level of Expertise:** Within 60 days from the date of this Task Order No. 002, the contractor will develop and submit to the NRC Project Officer for approval, a training plan for all staff members which is designed to develop journeyman personnel and keep senior personnel abreast with the latest developments in GIS and 3D modeling. The NRC Project Officer will provide comments on or approval of this training plan to the contractor within one (1) week from receipt. Should corrections or clarifications be required, the contractor will resubmit this plan accordingly, within one (1) week from receipt of the NRC Project Officer's comments. All deliverables shall be submitted in accordance with Subsection F.2 - DELIVERY FORMAT of the basic contract.

Efforts in this area shall include plans to attend formal training sessions given by the software vendors for the products used in CRADAL and attending conferences where other users are reporting on experiences with ArcInfo, Arcview, ERDAS, and Earthvision.

4. REPORTING REQUIREMENTS:

The contractor shall report on all such efforts monthly and make any suggested changes to the training plan to the NRC Project Officer. All reports shall be submitted in accordance with Subsection F.6 - 2052.212-71 TECHNICAL PROGRESS REPORTS of the basic contract.

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5. TRAINING REQUIREMENT:

This requirement shall be accomplished in accordance with Subsection C.5 - TRAINING REQUIREMENTS of the basic contract.

6. TRAVEL:

It is estimated that five person trips shall be required to Alameda, CA for training in updated Earthvision courses as required by the basic contract. We estimate that up to eight person trips may be required to inspect sites in preparation for modeling. All travel required by this task order shall be proposed for and made in accordance with Subsection G.2 - 2052.215-82 TRAVEL REIMBURSEMENT - ALTERNATE I of the basic contract.

7. PERIOD OF PERFORMANCE:

The period of performance of this task order shall be from October 1, 2000, through November 15, 2001.

8. LEVEL OF EFFORT:

The contractor shall perform in accordance with their technical proposal dated September 25, 2000, which is hereby accepted by the NRC.

9. TECHNICAL SKILLS REQUIRED:

The contractor shall provide resumes of all personnel selected to work under this task order unless previously provided.

10. TASK ORDER LEADER:

The Task Leader for this task order will be the NRC Project Officer under the basic contract, Mr. James Thomas. He can be reached at (301) 415-5168.