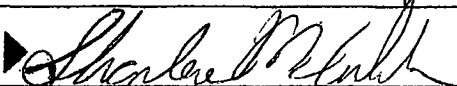


| ORDER FOR SUPPLIES OR SERVICES | | | | | | PAGE OF PAGES | |
|---|--|---|--------------------------|--|----------------|---|----------------------|
| IMPORTANT: Mark all packages and papers with contract and/or order numbers. | | | | | | 1 | 2 |
| 1. DATE OF ORDER 01/07/2014 | | 2. CONTRACT NO. (If any) NRC-HQ-12-C-02-0089 | | 6. SHIP TO: | | | |
| 3. ORDER NO. NRC-HQ-50-14-T-0001 | | 4. REQUISITION/REFERENCE NO. NMSS-14-0022 | | a. NAME OF CONSIGNEE US NUCLEAR REGULATORY COMMISSION- | | | |
| 5. ISSUING OFFICE (Address correspondence to) US NRC - HQ DIVISION OF CONTRACTS | | | | b. STREET ADDRESS MAIL PROCESSING CENTER 4930 BOILING BROOK PARKWAY | | | |
| | | | | c. CITY ROCKVILLE | | d. STATE MD | e. ZIP CODE 20852 |
| 7. TO: LAURA KLUS | | | | f. SHIP VIA | | | |
| a. NAME OF CONTRACTOR SOUTHWEST RESEARCH INSTITUTE | | | | 8. TYPE OF ORDER | | | |
| b. COMPANY NAME | | | | <input type="checkbox"/> a. PURCHASE REFERENCE YOUR: | | <input checked="" type="checkbox"/> b. DELIVERY | |
| c. STREET ADDRESS NA | | | | 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. | | Except for billing instructions on the reverse, this delivery 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. | |
| | | | | | | | |
| d. CITY SAN ANTONIO | | e. STATE TX | f. ZIP CODE 782385166 | | | | |
| 9. ACCOUNTING AND APPROPRIATION DATA See Schedule | | | | 10. REQUISITIONING OFFICE OFFICE OF NUCLEAR MATERIAL | | | |
| 11. BUSINESS CLASSIFICATION (Check appropriate box(es)) | | | | | | 12. F.O.B. POINT | |
| <input type="checkbox"/> a. SMALL <input 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. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB | | | | | | | |
| 13. PLACE OF | | 14. GOVERNMENT B/L NO. | | 15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) | | 16. DISCOUNT TERMS | |
| a. INSPECTION Destination | | b. ACCEPTANCE Destination | | | | | |
| 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) | |
| | NRC-HQ-12-C-02-0089/NRC-HQ-50-14-T-0001/Task Order 11 NOTE: The system generates a new Task Order number with each fiscal year. Therefore any changes to this task order for modification Continued ... | | | | | | |
| 18. SHIPPING POINT | | 19. GROSS SHIPPING WEIGHT | | 20. INVOICE NO. | | 17(h) TOTAL (Cont. pages) | |
| 21. MAIL INVOICE TO: | | | | | | | |
| a. NAME US NUCLEAR REGULATORY COMMISSION | | \$3,563,273.00 | | | | 17(i) GRAND TOTAL | |
| b. STREET ADDRESS (or P.O. Box) ONE WHITE FLINT NORTH | | | | | | | |
| c. CITY | | d. STATE | e. ZIP CODE | | \$3,563,273.00 | | |
| 22. UNITED STATES OF AMERICA BY (Signature)  | | | | 23. NAME (Typed) SHARLENE M. MCCUBBIN TITLE: CONTRACTING/ORDERING OFFICER | | | |

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 347 (Rev. 7/2012)
Prescribed by GSA/FAR 48 CFR 53.212(g)

SUNSI REVIEW COMPLETE

JAN 16 2014

TEMPLATE - ADM001

ADM002




ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO

2

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

| | | |
|---------------|---------------------|---------------------|
| DATE OF ORDER | CONTRACT NO. | ORDER NO. |
| 01/07/2014 | NRC-HQ-12-C-02-0089 | NRC-HQ-50-14-T-0001 |

| ITEM NO. (a) | SUPPLIES/SERVICES (b) | QUANTITY ORDERED (c) | UNIT (d) | UNIT PRICE (e) | AMOUNT (f) | QUANTITY ACCEPTED (g) |
|-----------------|---|----------------------------|-------------|----------------------|---|-----------------------------|
| | and billing purpose all documentations must reference the task order as NRC-HQ-50-14-T-0001. The contractor shall provide services in accordance with the attached Statement of Work. ACCEPTED: Signature:  01/08/2014 Print Name/Title: R. B. Kalmbach Accounting Info: Executive Director, Contracts 2014-CN200-NWF-50-50D002-36-4-149-1061-252A Period of Performance: 01/07/2014 to 01/06/2015 | | | | | |
| 00001 | Cost Reimbursement line item Line Item Ceiling \$3,240,857.00 Incrementally Funded Amount: \$477,584.00 | | | |  | |
| 00002 | Base and Award Fee The obligated amount of award: \$800,000.00. The total for this award is shown in box 17(i). | | | |  | |

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$3,563,273.00

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2008)

Prescribed by GSA FAR (48 CFR) 53.213(f)

| ORDER FOR SUPPLIES OR SERVICES | | | | | | PAGE OF PAGES | |
|---|--|---|-------------|--|---------------|---|----------------------|
| IMPORTANT: Mark all packages and papers with contract and/or order numbers. | | | | | | 1 | 2 |
| 1. DATE OF ORDER 01/07/2014 | | 2. CONTRACT NO. (If any) NRC-HQ-12-C-02-0089 | | 6. SHIP TO: | | | |
| 3. ORDER NO. NRC-HQ-50-14-T-0001 | | 4. REQUISITION/REFERENCE NO. NMSS-14-0022 | | a. NAME OF CONSIGNEE US NUCLEAR REGULATORY COMMISSION- | | | |
| 5. ISSUING OFFICE (Address correspondence to) US NRC - HQ DIVISION OF CONTRACTS | | | | b. STREET ADDRESS MAIL PROCESSING CENTER 4930 BOILING BROOK PARKWAY | | | |
| | | | | c. CITY ROCKVILLE | | d. STATE MD | e. ZIP CODE 20852 |
| 7. TO: LAURA KLUS | | | | f. SHIP VIA | | | |
| a. NAME OF CONTRACTOR SOUTHWEST RESEARCH INSTITUTE | | | | 8. TYPE OF ORDER | | | |
| b. COMPANY NAME | | | | <input type="checkbox"/> a. PURCHASE | | <input checked="" type="checkbox"/> b. DELIVERY | |
| c. STREET ADDRESS NA | | | | REFERENCE YOUR: | | Except for billing instructions on the reverse, this delivery 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. | |
| d. CITY SAN ANTONIO | | | | e. STATE TX | | | |
| f. ZIP CODE 782385166 | | | | 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. | | | |
| 9. ACCOUNTING AND APPROPRIATION DATA See Schedule | | | | 10. REQUISITIONING OFFICE OFFICE OF NUCLEAR MATERIAL | | | |
| 11. BUSINESS CLASSIFICATION (Check appropriate box(es)) | | | | | | 12. F.O.B. POINT | |
| <input type="checkbox"/> a. SMALL <input 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. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB | | | | | | | |
| 13. PLACE OF | | 14. GOVERNMENT B/L NO. | | 15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) | | 16. DISCOUNT TERMS | |
| a. INSPECTION Destination | | b. ACCEPTANCE Destination | | | | | |
| 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) | |
| | NRC-HQ-12-C-02-0089/NRC-HQ-50-14-T-0001/Task Order 11 NOTE: The system generates a new Task Order number with each fiscal year. Therefore any changes to this task order for modification Continued ... | | | | | | |
| 18. SHIPPING POINT | | 19. GROSS SHIPPING WEIGHT | | 20. INVOICE NO. | | 17(h) TOTAL (Cont. pages) | |
| 21. MAIL INVOICE TO: | | | | | | | |
| a. NAME US NUCLEAR REGULATORY COMMISSION | | | | | | \$3,563,273.00 | |
| b. STREET ADDRESS (or P.O. Box) ONE WHITE FLINT NORTH | | | | | | \$3,563,273.00 | |
| c. CITY | | | | | | | |
| d. STATE | | | | | | 17(i) GRAND TOTAL | |
| e. ZIP CODE | | | | | | | |
| 22. UNITED STATES OF AMERICA BY (Signature) | | | | 23. NAME (Typed) SHARLENE M. MCCUBBIN TITLE: CONTRACTING/ORDERING OFFICER | | | |




ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO

2

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

| | | |
|-----------------------------|-------------------------------------|----------------------------------|
| DATE OF ORDER 01/07/2014 | CONTRACT NO. NRC-HQ-12-C-02-0089 | ORDER NO. NRC-HQ-50-14-T-0001 |
|-----------------------------|-------------------------------------|----------------------------------|

| ITEM NO. (a) | SUPPLIES/SERVICES (b) | QUANTITY ORDERED (c) | UNIT (d) | UNIT PRICE (e) | AMOUNT (f) | QUANTITY ACCEPTED (g) |
|--|---|----------------------------|-------------|----------------------|---|-----------------------------|
| | and billing purpose all documentations must reference the task order as NRC-HQ-50-14-T-0001. The contractor shall provide services in accordance with the attached Statement of Work. ACCEPTED: Signature:  01/08/2014 Print Name/Title: R. B. Kalmbach Accounting Info: Executive Director, Contracts 2014-CN200-NWF-50-50D002-36-4-149-1061-252A Period of Performance: 01/07/2014 to 01/06/2015 | | | | | |
| 00001 | Cost Reimbursement line item Line Item Ceiling \$3,240,857.00 Incrementally Funded Amount: \$477,584.00 | | | |  | |
| 00002 | Base and Award Fee The obligated amount of award: \$800,000.00. The total for this award is shown in box 17(i). | | | |  | |
| TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H)) | | | | | | \$3,563,273.00 |

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2008)

Prescribed by GSA FAR (48 CFR) 53.213(f)

| | |
|--|-----------|
| SECTION B - Supplies or Services/Prices | 2 |
| NRCB010 BRIEF PROJECT TITLE AND WORK DESCRIPTION | 2 |
| NRCB070 CONSIDERATION AND OBLIGATION-COST-PLUS-AWARD-FEE | 2 |
| SECTION D - Packaging and Marking | 3 |
| NRCD010 PACKAGING AND MARKING | 3 |
| SECTION E - Inspection and Acceptance | 4 |
| SECTION F - Deliveries or Performance | 5 |
| NRCF032 TASK/DELIVERY ORDER PERIOD OF PERFORMANCE (SEP 2013) | 5 |
| NRCF010 PLACE OF DELIVERY-REPORTS | 5 |
| SECTION G - Contract Administration Data | 6 |
| NRCG030 ELECTRONIC PAYMENT (SEP 2013) | 6 |
| SECTION H - Special Contract Requirements | 7 |
| 2052.215-70 KEY PERSONNEL. (JAN 1993) | 7 |
| 2052.215-71 CONTRACTING OFFICER'S REPRESENTATIVE (NOVEMBER 2006) | 7 |
| 2052.215-78 TRAVEL APPROVALS AND REIMBURSEMENT (OCT 1999) - | |
| ALTERNATE I (OCT 1999) | 9 |
| NRCH480 USE OF AUTOMATED CLEARING HOUSE (ACH) ELECTRONIC | |
| PAYMENT/REMITTANCE ADDRESS | 10 |
| NRCH470 GREEN PURCHASING (SEP 2013) | 10 |
| NRCH410 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND | |
| SUBCONTRACTOR EMPLOYEES | 10 |
| SECTION I - Contract Clauses | 12 |

ATTACHMENTS:

STATEMENT OF WORK

BILLING INSTRUCTIONS COST REIMBURSEMENT

SECTION B - Supplies or Services/Prices

NRCB010 BRIEF PROJECT TITLE AND WORK DESCRIPTION

(a) The title of this project is: TECHNICAL ASSISTANCE FOR COMPLETING THE DEVELOPMENT OF THE SER RELATED TO DISPOSAL OF HIGH-LEVEL WASTES IN A GEOLOGIC REPOSITORY AT YUCCA MOUNTAIN, NEVADA; AND THE ADOPTION REVIEW OF THE SUPPLEMENTATION TO THE DOE YUCCA MOUNTAIN ENVIRONMENTAL IMPACT STATEMENT

(b) Summary work description:

The objective of this task order is to (1) obtain technical assistance related to completion of SER Volumes two through five, and (2) technical assistance related to the completion of the NRC staff's review of DOE's supplemental EIS.

(End of Clause)

NRCB070 CONSIDERATION AND OBLIGATION-COST-PLUS-AWARD-FEE

(a) The total estimated cost to the Government for full performance of this contract is \$3,563,273.00, of which the sum of \$3,240,857.00 represents the estimated reimbursable costs, and of which \$128,966.40 represents the base fee.

(b) An award fee pool of \$193449.60 is hereby established for this contract. Evaluation of award fee earned will be accomplished in accordance with the attached Award Fee Plan (AFP). The Government reserves the right to unilaterally change the content of the AFP at any time during the life of this contract. Any changes to the plan will be furnished to the Contractor prior to the date they become effective. The amount of award fee available for each period of evaluation and the amount of time for each period will be set forth in the AFP. The final evaluation and determination as to the amount of award fee earned during an evaluation period shall be made unilaterally by the Fee Determination Official (FDO). The Contractor shall be advised of the award fee decision by letter which shall include the rationale for reaching the decision.

(c) The amount obligated by the Government with respect to this contract is \$800,000.00.

(d) This is a fully-funded contract and FAR 52.232-20 – "Limitation of Cost" applies.

(End of Clause)

SECTION D - Packaging and Marking

NRCD010 PACKAGING AND MARKING

(a) The Contractor shall package material for shipment to the NRC in such a manner that will ensure acceptance by common carrier and safe delivery at destination. Containers and closures shall comply with the Surface Transportation Board, Uniform Freight Classification Rules, or regulations of other carriers as applicable to the mode of transportation.

(b) On the front of the package, the Contractor shall clearly identify the contract number under which the product is being provided.

(c) Additional packaging and/or marking requirements are as follows: N/A.

(End of Clause)

SECTION E - Inspection and Acceptance

NOT APPLICABLE TO THIS TASK ORDER

SECTION F - Deliveries or Performance

NRCF032 TASK/DELIVERY ORDER PERIOD OF PERFORMANCE (SEP 2013)

This order shall commence on 01-07-2014 and will expire on 01-06-2015.

(End of Clause

NRCF010 PLACE OF DELIVERY-REPORTS

The items to be furnished hereunder shall be delivered, with all charges paid by the Contractor, to:

- a. Name: Christian Jacobs (1 hard copy)
- b. Contracting Officer's Representative (COR)
- c. U.S. Nuclear Regulatory Commission
- d. Address:

Mail Stop: 3WFN/ 13 C28
Three White Flint North
11601 Landsdown Street

North Bethesda, MD 20852

- e. Electronic copies to:

- f. (List names and email addresses)

g. Name: Christian Jacobs: Christian.Jacobs@nrc.gov

Deborah DeMarco: Deborah.DeMarco@nrc.gov

Sharlene McCubbin: Sharlene.McCubbin@nrc.gov (1 hard copy)

- h. Contracting Officer (CO)

- i. U.S. Nuclear Regulatory Commission

- j. Address:

Mail Stop: 3WFN/ 05 C64MP
Three White Flint North
11601 Landsdown Street

North Bethesda, MD 20852

(End of Clause)

SECTION G - Contract Administration Data

NRCG030 ELECTRONIC PAYMENT (SEP 2013)

The Debt Collection Improvement Act of 1996 requires that all payments except IRS tax refunds be made by Electronic Funds Transfer. Payment shall be made in accordance with FAR 52.232-33, entitled "Payment by Electronic Funds Transfer-System Award Management".

To receive payment, the contractor shall prepare invoices in accordance with NRC's Billing Instructions. Claims shall be submitted on the payee's letterhead, invoice, or on the Government's Standard Form 1034, "Public Voucher for Purchases and Services Other than Personal," and Standard Form 1035, "Public Voucher for Purchases Other than Personal – Continuation Sheet." The preferred method of submitting invoices is electronically to: [OCFO ObligationsResource@nrc.gov](mailto:OCFOObligationsResource@nrc.gov).

(End of Clause)

SECTION H - Special Contract Requirements

2052.215-70 KEY PERSONNEL. (JAN 1993)

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

| | |
|-----------------------|--|
| Dr. David Pickett | Project Manager, Principal Investigator Task 1 |
| Dr. Biswajit Dasgupta | Principal Investigator Task 2 |
| Dr. Gordon Wittmeyer | Principal Investigator Task 3 |
| Mr. Bradley Werling | Principal Investigator Task 4 |
| Dr. Wesley Patrick | Principal Investigator Task 5 |
| Dr. Robert Lenhard | Principal Investigator Task 6 |

*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.

(End of Clause)

* To be incorporated into any resultant contract

2052.215-71 CONTRACTING OFFICER'S REPRESENTATIVE (NOVEMBER 2006)

(a) The contracting officer's authorized representative hereinafter referred to as the project officer for this contract is:

(2) Constitutes a change as defined in the "Changes" clause of this contract.

(3) In any way causes an increase or decrease in the total estimated contract cost, the fixed fee, if any, or the time required for contract performance.

(4) Changes any of the expressed terms, conditions, or specifications of the contract.

(5) Terminates the contract, settles any claim or dispute arising under the contract, or issues any unilateral directive whatever.

(d) All technical directions must be issued in writing by the project officer or must be confirmed by the project officer in writing within ten (10) working days after verbal issuance. A copy of the written direction must be furnished to the contracting officer. A copy of NRC Form 445, Request for Approval of Official Foreign Travel, which has received final approval from the NRC must be furnished to the contracting officer.

(e) The contractor shall proceed promptly with the performance of technical directions duly issued by the project officer in the manner prescribed by this clause and within the project officer's authority under the provisions of this clause.

(f) If, in the opinion of the contractor, any instruction or direction issued by the project officer is within one of the categories defined in paragraph (c) of this section, the contractor may not proceed but shall notify the contracting officer in writing within five (5) working days after the receipt of any instruction or direction and shall request that contracting officer to modify the contract accordingly. Upon receiving the notification

Name: Christian Jacobs

Address: Email Address: Christian.Jacobs@nrc.gov

Telephone Number: 301-287-9162

(b) Performance of the work under this contract is subject to the technical direction of the NRC project officer. The term technical direction is defined to include the following:

(1) Technical direction to the contractor which shifts work emphasis between areas of work or tasks, authorizes travel which was unanticipated in the Schedule (i.e., travel not contemplated in the Statement of Work or changes to specific travel identified in the Statement of Work), fills in details, or otherwise serves to accomplish the contractual statement of work.

(2) Provide advice and guidance to the contractor in the preparation of drawings, specifications, or technical portions of the work description.

(3) Review and, where required by the contract, approve technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government under the contract.

(c) Technical direction must be within the general statement of work stated in the contract. The project officer does not have the authority to and may not issue any technical direction which:

(1) Constitutes an assignment of work outside the general scope of the contract.

from the contractor, the contracting officer shall issue an appropriate contract modification or advise the contractor in writing that, in the contracting officer's opinion, the technical direction is within the scope of this article and does not constitute a change under the "Changes" clause.

(g) Any unauthorized commitment or direction issued by the project officer may result in an unnecessary delay in the contractor's performance and may even result in the contractor expending funds for unallowable costs under the contract.

(h) A failure of the parties to agree upon the nature of the instruction or direction or upon the contract action to be taken with respect to the instruction or direction is subject to 52.233-1 - Disputes.

(i) In addition to providing technical direction as defined in paragraph (b) of the section, the project officer shall:

(1) Monitor the contractor's technical progress, including surveillance and assessment of performance, and recommend to the contracting officer changes in requirements.

(2) Assist the contractor in the resolution of technical problems encountered during performance.

(3) Review all costs requested for reimbursement by the contractor and submit to the contracting officer recommendations for approval, disapproval, or suspension of payment for supplies and services required under this contract.

(End of Clause)

**2052.215-78 TRAVEL APPROVALS AND REIMBURSEMENT (OCT 1999) -
ALTERNATE I (OCT 1999)**

(a) Total expenditure for travel may not exceed \$22,857.00 without the prior approval of the contracting officer.

(b) All foreign travel must be approved in advance by the NRC on NRC Form 445, Request for Approval of Official Foreign Travel, and must be in compliance with FAR 52.247-63 Preference for U.S. Flag Air Carriers. The contractor shall submit NRC Form 445 to the NRC no later than 30 days prior to the commencement of travel.

(c) The contractor will be reimbursed only for travel costs incurred that are directly related to this contract and are allowable subject to the limitations prescribed in FAR 31.205-46.

(d) It is the responsibility of the contractor to notify the contracting officer in accordance with the FAR Limitations of Cost clause of this contract when, at any time, the contractor learns that travel expenses will cause the contractor to exceed the travel ceiling amount identified in paragraph (a) of this clause.

(e) Reasonable travel costs for research and related activities performed at State and nonprofit institutions, in accordance with Section 12 of Pub. L. 100-679, must be

charged in accordance with the contractor's institutional policy to the degree that the limitations of Office of Management and Budget (OMB) guidance are not exceeded. Applicable guidance documents include OMB Circular A-87, Cost Principles for State and Local Governments; OMB Circular A-122, Cost Principles for Nonprofit Organizations; and OMB Circular A-21, Cost Principles for Educational Institutions.

*To be incorporated into any resultant contract

(End of Clause)

NRCH480 USE OF AUTOMATED CLEARING HOUSE (ACH) ELECTRONIC PAYMENT/REMITTANCE ADDRESS

The Debt Collection Improvement Act of 1996 requires that all Federal payments except IRS tax refunds be made by Electronic Funds Transfer. It is the policy of the Nuclear Regulatory Commission to pay government vendors by the Automated Clearing House (ACH) electronic funds transfer payment system. Item 15C of the Standard Form 33 may be disregarded.

(End of Clause)

NRCH470 GREEN PURCHASING (SEP 2013)

(a) In furtherance of the sustainable acquisition goals included in Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," products and services acquired under this contract/order shall be energy-efficient (Energy Star or Federal Energy Management Program (FEMP) designated), water-efficient, biobased, environmentally preferable (e.g., Electronic Product Environmental Assessment Tool (EPEAT) certified), non-ozone depleting, recycled content, and non-toxic or less toxic alternatives, to the maximum extent practicable in meeting NRC contractual requirements.

(b) See NRC's Green Purchasing Plan (GPP) at: <http://pbadupws.nrc.gov/docs/ML1219/ML12191A130.pdf> and the General Service Administration's (GSA) Green Procurement Compilation at: <http://www.gsa.gov/portal/content/198257>.

(c) The contractor shall flow down this clause into all subcontracts and other agreements that relate to performance of this contract/order.

(End of Clause)

NRCH410 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES

(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 entitled: "Your Rights Under the Energy Reorganization Act".

(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.

(End of Clause)

SECTION I - Contract Clauses

NO CLAUSES FOR THIS TASK ORDER

ATTACHMENTS:

STATEMENT OF WORK

BILLING INSTRUCTIONS COST REIMBURSEMENT

PROJECT TITLE: OPERATION OF THE CENTER FOR NUCLEAR WASTE ANALYSES AS THE NRC'S FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTER (FFRDC) – FIFTH RENEWAL

TASK TITLE: TECHNICAL ASSISTANCE FOR COMPLETING THE DEVELOPMENT OF THE SAFETY EVALUATION REPORT (SER) RELATED TO DISPOSAL OF HIGH-LEVEL WASTES IN A GEOLOGIC REPOSITORY AT YUCCA MOUNTAIN, NEVADA; AND THE ADOPTION REVIEW OF THE SUPPLEMENTATION TO THE DEPARTMENT OF ENERGY'S (DOE) YUCCA MOUNTAIN ENVIRONMENTAL IMPACT STATEMENT (EIS)

TASK ORDER NUMBER:

JOB CODE:

B&R NUMBER:

ISSUING OFFICE: Spent Fuel Alternative Strategies, NMSS

NRC CONTRACTING OFFICER'S

REPRESENTATIVE (COR): Deborah DeMarco (301) 287-9156

NRC TASK ORDER (TO) COR: Christian Jacobs (301) 287-9162

FEE RECOVERABLE: No

TAC NUMBER:

DOCKET NUMBER: NA

1.0 BACKGROUND

In August 2010, the Nuclear Regulatory Commission published Volume 1 (General Information) of a planned five volume SER related to DOE's license application to construct a repository for the disposal of high-level radioactive wastes at Yucca Mountain, Nevada. Subsequent volumes were not completed before NRC's review was suspended on October 1, 2010. On November 18, 2013, the Commission directed staff to complete and publish the remaining SER volumes. In addition, the Commission requested that DOE prepare the supplemental EIS that the staff has determined is needed for review of the license application under the National Environmental Policy Act.

2.0 OBJECTIVE

The objective of this task order is to (1) obtain technical assistance related to completion of SER Volumes two through five, and (2) technical assistance related to the completion of the NRC staff's review of DOE's supplemental EIS.

3.0 STAFFING

Professional staff proposed for the effort shall be thoroughly familiar with the technical aspects of the activities they are tasked with. Technical expertise in the following areas may be needed: geology; seismology; volcanology; hydrology, including coupled thermal-hydrology-geochemical processes; materials science; corrosion science; geochemistry; engineered barrier systems; mechanical or mining engineering; nuclear engineering; waste form; source term (thermal loads, inventory as function of different of waste streams, burn-ups, and storage times); radionuclide release; radionuclide transport; performance probabilistic risk assessment, and health physics. Preclosure safety analysis expertise is needed to address specific aspects of siting, design, risk,

and operational safety issues.

4.0 SCOPE OF WORK AND DELIVERABLES

The overall objective of this task order is for the CNWRA to support NRC staff in completing SER Volume 2 (Preclosure), SER Volume 3 (Postclosure), SER Volume 4 (Administrative and other topics), and SER Volume 5 (License Conditions). This work will build on the work previously completed for each volume.

The work conducted to support the NRC EIS adoption review will focus on supplements prepared by DOE to address the potential impacts of the proposed action on groundwater, and from surface discharges of groundwater.

Work under this task order shall be subject to the project management requirements described in Section 5.0. The work required is described below.

TASK 0: MANAGEMENT ACTIVITIES

SUBTASK 0-A – Periodic Monthly Period Reports (PMPR)

CNWRA management should provide a monthly overview of the key activities conducted and accomplishments achieved.

Frequent staff to staff interactions should be scheduled to ensure complete understanding of scope, schedule, and expectations.

4.1 TASK 1: Development of SER Volume 2: Repository Safety Before Permanent Closure

CNWRA staff will support the NRC in developing SER Volume 2: Repository Safety Before Permanent Closure. All Volume 2 completion changes will be done in Microsoft SharePoint. A detailed Volume 2 completion strategy will be developed in collaboration with Center staff. Task 1 activities, in support of designated NRC staff, are likely to include (but are not limited to):

- Assess the current status of the volume
- Develop a strategy for volume completion
- Prepare remaining volume/chapter inputs
- Provide analytical support for technical review
- Combine technical reviewer inputs for draft final chapter
- Support the resolution of comments from OGC on SER volume/chapter and develop final text
- Conduct editorial review of SER chapter
- Compile SER volume
- Ensure that responses to any requests for additional information (RAIs) have been incorporated in the SER chapter
- Assist in ensuring that all cited references are publicly available
- Resolve SER volume comments
- Conduct editorial review of SER volume
- Participate in public outreach

Deliverable:

The finished product will be reported to NRC as a CNWRA intermediate milestone. At the completion of the volume, CNWRA will notify NRC of its completion by a letter, the

volume text will remain in Microsoft SharePoint, and a hard copy will not be transmitted.

4.2 TASK 2: Development of SER Volume 3: Repository Safety After Permanent Closure

CNWRA staff will support the NRC in developing SER Volume 3: Repository Safety After Permanent Closure. All Volume 3 completion changes will be done in Microsoft SharePoint. A detailed Volume 3 completion strategy will be developed in collaboration with Center staff. Task 2 activities, in support of designated NRC staff, are likely to include (but are not limited to):

- Assess the current status of the volume
- Develop a strategy for volume completion
- Prepare remaining volume/chapter inputs
- Provide analytical support for technical review
- Combine technical reviewer inputs for draft final chapter
- Support the resolution of comments from OGC on SER volume/chapter and develop final text
- Conduct technical editing of each SER chapter
- Compile SER volume
- Ensure that responses to RAIs have been incorporated in the SER chapter
- Assist in ensuring that all cited references are publicly available
- Resolve SER volume comments
- Perform final formatting of the SER volume
- Participate in possible public outreach, if needed

Deliverable:

The finished product will be reported to NRC as a CNWRA intermediate milestone. At the completion of the volume, CNWRA will notify NRC of its completion by a letter. The volume text will remain in Microsoft SharePoint, and a hard copy will not be transmitted.

4.3 TASK 3: Development of SER Volume 4 - Administrative and Other Topics

CNWRA staff will support the NRC in developing SER Volume 4: Repository Safety After Permanent Closure. All Volume 4 completion changes will be done in Microsoft SharePoint. A detailed Volume 4 completion strategy will be developed in collaboration with Center staff. Task 3 activities, in support of designated NRC staff, are likely to include (but are not limited to):

- Assess the current status of the volume
- Develop a strategy for volume completion
- Prepare remaining volume/chapter inputs
- Provide analytical support for technical review
- Combine technical reviewer inputs for draft final chapter
- Support the resolution of comments from OGC on SER volume/chapter and develop final text
- Conduct technical editing of each SER chapter
- Compile SER volume
- Ensure that responses to RAIs have been incorporated in the SER chapter
- Assist in ensuring that all cited references are publicly available
- Resolve SER volume comments
- Perform final formatting of the SER volume
- Participate in possible public outreach, as needed

Deliverable:

The finished product will be reported to NRC as a CNWRA intermediate milestone. At the completion of the volume, CNWRA will notify NRC of its completion by a letter. The volume text will remain in Microsoft SharePoint, and a hard copy will not be transmitted.

4.4 TASK 4: Development of SER Volume 5 – License Conditions

CNWRA staff will support the NRC in developing SER Volume 5: License Conditions. All Volume 5 completion changes will be done in Microsoft SharePoint. A detailed Volume 5 completion strategy will be developed in collaboration with Center staff. Task 4 activities, in support of designated NRC staff, are likely to include (but are not limited to):

- Assess the current status of the volume
- Develop a strategy for volume completion
- Prepare remaining volume/chapter inputs
- Combine technical reviewer inputs for draft final chapter
- Support the resolution of comments from OGC on SER volume/chapter and develop team final text
- Conduct technical editing of each SER chapter
- Compile SER volume
- Assist in ensuring that all cited references are publicly available
- Resolve SER volume comments
- Perform final formatting of the SER volume
- Participate in possible public outreach, as needed

Deliverable:

The finished product will be reported to NRC as a CNWRA intermediate milestone. At the completion of the volume, CNWRA will notify NRC of its completion by a letter, the volume text will remain in Microsoft SharePoint, and a hard copy will not be transmitted.

4.5 TASK 5: Support for DOE EIS Adoption Review

CNWRA staff will support the NRC staff's adoption review of DOE's supplemental EIS for the proposed geologic repository at Yucca Mountain. The work conducted will support NRC staff review of the supplemental EIS prepared by DOE that the staff has determined is needed for purposes of the review of this application under the National Environmental Policy Act. A detailed review strategy will be developed in collaboration with Center staff. All report development will be done in Microsoft SharePoint. Task 5 activities are likely to include (but are not limited to):

- Technical review of the draft and final supplement prepared by DOE, including any supporting documents
- Provide analytical support for the technical review
- Provide input to NRC staff comments on the draft supplement, as needed.
- Combine technical reviewer inputs for draft final report
- Support the resolution of comments from OGC on the adoption determination report, and develop team final text
- Conduct technical editing of adoption determination report
- Assist in ensuring that all cited references are publicly available
- Participate in possible public outreach, as needed

Deliverable:

The exact nature of the adoption determination report is to be determined. The finished

product will be reported to NRC as a CNWRA intermediate milestone. At the completion of the adoption determination report, CNWRA will notify NRC of its completion by a letter. The report text will remain in Microsoft SharePoint, and a hard copy will not be transmitted.

5.0 PROJECT MANAGEMENT

The Center shall maintain effective communication with NRC staff to help coordinate and integrate this effort with NRC's technical and decision-making activities. The Center shall also coordinate all necessary NRC communication through the NRC COR and/or NRC TO COR. We expect strong NRC staff involvement in the development of, and participation in conducting, the work in the various topic areas identified in Section 3.0. The NRC will assign a technical lead from the NRC staff for each task (e.g., SER volume) who will serve as the Center's direct technical interface for the task.. Each task technical lead and the cognizant NRC Branch Chief will likely appoint technical staff to "champion" individual volume chapters. The Branch Chief will be responsible for: (1) correctly defining the focus for the Center's activities for their assigned topic, in coordination with the NRC COR and/or the NRC TO COR (see Section 13 for restrictions on providing technical direction); (2) ensuring the proper focus is maintained during the technical activities; and (3) ensuring integration of efforts for the specific topic between the Center and the NRC. The staff "chapter champion" will ensure that the overall directions are followed at the chapter level. Any direction not given from the NRC COR, NRC TO COR, Branch Chief, or staff champion (or appears to be inconsistent your understanding of the technical direction) should be reported to the NRC COR and NRC TO COR immediately.

6.0 ACCEPTANCE CRITERIA

The contractor shall describe any applicable quality assurance program. Specifically, any work (i.e., data, interpretations, models, computations, methods, etc.) developed under the contract shall be performed under an adequate quality assurance program (discussed with and approved by the NRC COR and/or the NRC TO COR) to ensure the technical accuracy and quality of the documents produced. Quality assurance comprises all those planned and systematic actions necessary to provide adequate confidence that the assessments have been satisfactory performed. Quality assurance shall include verification for completeness, accuracy, consistency, and sufficient documentation to assure the reproducibility of the results of all calculations, laboratory experiments (if any), or modeling.

7.0 LEVEL OF EFFORT

The level of effort for this task order is estimated at a maximum of 18,130 staff hours or approximately 10 full time equivalents.

8.0 PERIOD OF PERFORMANCE

The period of performance for this task order is estimated to be 12 months from the task order award date. It should be assumed that the majority of this task order effort will be completed within the first six months.

9.0 MEETINGS AND TRAVEL

Domestic travel, related to this effort shall require the prior approval by the NRC COR or NRC TO COR. To enhance integration and support the collaborative effort expected between the staffs of the NRC and the Center on this task, the NRC staff may participate in staff exchanges with the Center, subject to prior approval by the NRC and the Center.

10. NRC FURNISHED MATERIAL

The NRC TO COR will provide copies of the necessary information, codes, and models to conduct the activities for each topic to the pertinent, identified, Center staff.

11.0 CONTRACTOR ACQUIRED MATERIAL

No materials are expected to be acquired.

12.0 REPORTS

All reports are to be developed in the CNWRA SharePoint system. Submittals for all Task deliverables shall be submitted via electronic mail with electronic attachments consistent with the word processor in use at the NRC or in portable document format (*i.e.*, *.pdf), as appropriate. The contractor shall also include the NRC COR and NRC TO COR and the relevant NRC Branch Chief in the electronic mail. Reports by the contractor shall be in letter report form. The deliverables should attribute work to both NRC and CNWRA when the effort is joint.

13.0 TECHNICAL/PROJECT DIRECTION

Deborah DeMarco is the COR for the contract and Chris Jacobs is the NRC TO COR. They are the focal point for all task order-related activities. Technical direction may be provided by the NRC COR and/or NRC TO COR to the contractor during the duration of this task order.

14.0 STANDARD WORK PRACTICES

For all draft and final reports under this agreement, the contractor shall assure that an independent review of numerical computations, mathematical equations, and derivations is performed by qualified technical staff other than the original author(s) of the reports and other than the person who performed the original calculation. If the contractor proposes to check less than 100 percent of all computations, mathematical equations, and derivations in the report(s) (such as may be the case when there is a large number of routine, repetitive calculations), the contractor must first obtain approval from the NRC COR and/or NRC TO COR. In addition, all reports, including those which do not contain numerical analyses must be reviewed for consistency and readability in accordance with the procedures outline for the CNWRA's programmatic review. Informal submittals/deliverables must be reviewed and forwarded from at least the Project Manager level. The contractor should also be able to provide to NRC copies of all computational programs and input used in support of staff findings, as needed to support future adjudication.

This section does not intend to create the development of a formal quality assurance program nor does it require formal quality assurance program documentation or review.

**APPENDIX A
SCHEDULE AND DELIVERABLES**

The schedule of deliverables for Tasks 0 through 5 is outlined below.

| TASK | DELIVERABLE | SCHEDULE¹ (business days) |
|-------------|--|---|
| 0 | Periodic Monthly Period Reports | Within 15 days of close of period |
| 1 | Letter report documenting completion of volume work | Within 15 days of submittal of volume to final NRC concurrence (estimate October 2014) |
| 2 | Letter report documenting completion of volume work | Within 15 days of submittal of volume to final NRC concurrence (estimate September 2014) |
| 3 | Letter report documenting completion of volume work | Within 15 days of submittal of volume to final NRC concurrence (estimate September 2014) |
| 4 | Letter report documenting completion of volume work | Within 15 days of submittal of volume to final NRC concurrence (estimate October 2014) |
| 5 | Letter report documenting completion of EIS supplement adoption determination work | Within 15 days of submittal of adoption determination report to final NRC concurrence (estimate January 2015) |

¹Schedule dates reflect current estimates and are subject to change.

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

General: During performance and through final payment of this contract, the contractor is responsible for the accuracy and completeness of data within the System for Award Management (SAM) database and for any liability resulting from the Government's reliance on inaccurate or incomplete SAM data.

The contractor shall prepare invoices/vouchers for reimbursement of costs in the manner and format described herein. FAILURE TO SUBMIT INVOICES/VOUCHERS IN ACCORDANCE WITH THESE INSTRUCTIONS MAY RESULT IN REJECTION OF THE INVOICE/VOUCHER AS IMPROPER.

Standard Forms: Reimbursement requests shall be submitted on the payee's letterhead, invoice/voucher, or on the Government's Standard Form 1034, "Public Voucher for Purchases and Services Other than Personal," and Standard Form 1035, "Public Voucher for Purchases Other than Personal—Continuation Sheet."

Electronic Invoice/Voucher Submissions: The preferred method of submitting invoices/vouchers is electronically to the U.S. Nuclear Regulatory Commission, via email to: NRCPayments@nrc.gov.

Hard-Copy Invoice/Voucher Submissions: If you submit a hard-copy of the invoice/voucher, a signed original and supporting documentation shall be submitted to the following address:

NRC Payments
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mailstop O3-E17A
Rockville, MD 20852-2738

Purchase of Capital Property: (\$50,000 or more with life of one year or longer)

Contractors must report to the Contracting Officer, electronically, any capital property acquired with contract funds having an initial cost of \$50,000 or more, in accordance with procedures set forth in NRC Management Directive (MD) 13.1, IV, C – "Reporting Requirements" (revised 2/16/2011).

Agency Payment Office: Payment will continue to be made by the office designated in the contract in Block 12 of the Standard Form 26, or Block 25 of the Standard Form 33, whichever is applicable.

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

Frequency: The contractor shall submit requests for reimbursement once each month, unless otherwise authorized by the Contracting Officer.

Format: Invoices/Vouchers shall be submitted in the format depicted on the attached sample form entitled "Invoice/Voucher for Purchases and Services Other Than Personal". Alternate formats are permissible only if they address all requirements of the Billing Instructions. The instructions for preparation and itemization of the invoice/voucher are included with the sample form.

Task Order Contracts: The contractor must submit a separate invoice/voucher for each individual task order with detailed cost information. This includes all applicable cost elements and other items discussed in paragraphs (a) through (s) of the attached instructions. In addition, the invoice/voucher must specify the contract number, and the NRC-assigned task/delivery order number.

Billing of Costs after Expiration of Contract: If costs are incurred during the contract period and invoiced after the contract has expired, you must cite the period during which these costs were incurred. To be considered a proper expiration invoice/voucher, the contractor shall clearly mark it "EXPIRATION INVOICE" or "EXPIRATION VOUCHER".

Final invoices/vouchers shall be marked "FINAL INVOICE" or "FINAL VOUCHER".

Currency: Invoices/Vouchers must be expressed in U.S. Dollars.

Supersession: These instructions supersede previous Billing Instructions for Cost-Reimbursement Type Contracts (July 2011).

**INVOICE FORMAT FOR COST-REIMBURSEMENT
CONTRACTS**

Version Control Date: May 2, 2013

ATTACHMENT

**BILLING INSTRUCTIONS FOR
COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)**

**INVOICE/VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL
(SAMPLE FORMAT - COVER SHEET)**

1. Official Agency Billing Office

NRC Payments
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mailstop O3-E17A
Rockville, MD 20852-2738

2. Invoice/Voucher Information

a. Payee's DUNS Number or DUNS+4. The Payee shall include the Payee's Data Universal Number (DUNS) or DUNS+4 number that identifies the Payee's name and address. The DUNS+4 number is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the Payee to identify alternative Electronic Funds Transfer (EFT) accounts for the same parent concern.

b. Taxpayer Identification Number. The Payee shall include the Payee's taxpayer identification number (TIN) used by the Internal Revenue Service (IRS) in the administration of tax laws. (See IRS Web site: [http://www.irs.gov/Businesses/Small-Businesses-&Self-Employed/Employer-ID-Numbers-\(EINs\)](http://www.irs.gov/Businesses/Small-Businesses-&Self-Employed/Employer-ID-Numbers-(EINs))).

c. Payee's Name and Address. Show the name of the Payee as it appears in the contract and its correct address. If the Payee assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Payee shall require as a condition of any such assignment, that the assignee shall register separately in the System for Award Management (SAM) database at <http://sam.gov> and shall be paid by EFT in accordance with the terms of this contract. See Federal Acquisition Regulation (FAR) 52.232-33(g) Payment by Electronic Funds Transfer - Central Contractor Registration (October 2003).

d. Contract Number. Insert the NRC contract number (including Enterprise-wide Contract (EWC)), GSA Federal Supply Schedule (FSS), Governmentwide Agency Contract (GWAC) number, or Multiple Agency Contract (MAC) number, as applicable.

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

- e. Task Order Number. Insert the task/delivery order number (If Applicable). **Do not include more than one task order per invoice or the invoice may be rejected as improper.**
- f. Invoice/Voucher. The appropriate sequential number of the invoice/voucher, beginning with 001 should be designated. Contractors may also include an individual internal accounting number, if desired, in addition to the 3-digit sequential number.
- g. Date of Invoice/Voucher. Insert the date the invoice/voucher is prepared.
- h. Billing Period. Insert the beginning and ending dates (day, month, year) of the period during which costs were incurred and for which reimbursement is requested.
- i. Description of Deliverables. Provide a brief description of supplies or services, quantity, unit cost, and total cost.
- j. Work Completed. Provide a general summary description of the services performed or products submitted for the invoice period and specify the section or Contract Line Item Number (CLIN) or SubCLIN in the contract pertaining to the required deliverable(s).
- k. Shipping. Insert weight and zone of shipment, if shipped by parcel post.
- l. Charges for freight or express shipments. Attach prepaid bill if shipped by freight or express.
- m. Instructions. Include instructions to consignee to notify the Contracting Officer of receipt of shipment.
- n. For Indefinite Delivery contracts, the final invoice/voucher shall be marked "FINAL INVOICE" or "FINAL VOUCHER".
- o. Direct Costs. Insert the amount billed for the following cost elements, adjustments, suspensions, and total amounts, for both the current billing period and for the cumulative period (from contract inception to end date of this billing period).

- (1) Direct Labor. This consists of salaries and wages paid (or accrued) for direct performance of the contract itemized as follows:

| <u>Labor</u> <u>Category</u> | <u>Hours</u> <u>Billed</u> | <u>Rate</u> | <u>Total</u> | <u>Cumulative</u> <u>Hours Billed</u> |
|---------------------------------|-------------------------------|-------------|--------------|--|
|---------------------------------|-------------------------------|-------------|--------------|--|

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

- (2) **Fringe Benefits.** This represents fringe benefits applicable to direct labor and billed as a direct cost. Where a rate is used indicate the rate. Fringe benefits included in direct labor or in other indirect cost pools should not be identified here.
- (3) **Contractor-acquired property (\$50,000 or more).** List each item costing \$50,000 or more and having a life expectancy of more than one year. List only those items of equipment for which reimbursement is requested. For each such item, list the following (as applicable): (a) an item description, (b) manufacturer, (c) model number, (d) serial number, (e) acquisition cost, (f) date of purchase, and (g) a copy of the purchasing document.
- (4) **Contractor-acquired property (under \$50,000), Materials, and Supplies.** These are equipment other than that described in (3) above, plus consumable materials and supplies. List by category. List items valued at \$1,000 or more separately. Provide the item number for each piece of equipment valued at \$1,000 or more.
- (5) **Premium Pay.** This enumeration in excess of the basic hourly rate. (Requires written approval of the Contracting Officer.)
- (6) **Consultant Fee.** The supporting information must include the name, hourly or daily rate of the consultant, and reference the NRC approval (if not specifically approved in the original contract).
- (7) **Travel.** Total costs associated with each trip must be shown in the following format:
- | <u>Start Date</u> | | <u>Destination</u> | | <u>Costs</u> |
|-------------------|----|--------------------|----|--------------|
| From | To | From | To | \$ |
- (Must include separate detailed costs for airfare, per diem, and other transportation expenses. All costs must be adequately supported by copies of receipts or other documentation.)*
- (8) **Subcontracts.** Include separate detailed breakdown of all costs paid to approved subcontractors during the billing period.
- (9) **Other Costs.** List all other direct costs by cost element and dollar amount separately.

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

p. Indirect Costs (Overhead and General and Administrative Expense). Cite the formula (rate and base) in effect in accordance with the terms of the contract, during the time the costs were incurred and for which reimbursement is requested.

q. Fixed-Fee. If the contract provides for a fixed-fee, it must be reimbursed as indicated in the contract. Cite the formula or method of computation. Include this information as it applies to individual task orders as well.

(1) The NRC will withhold payment of 15% of the negotiated contract fixed-fee amount, not to exceed \$100,000.

(2) If the fee withholding amount has reached \$100,000, the contractor may resume billing the NRC for the balance of its fee under subsequent invoices for work completed.

(3) Any fee amounts withheld by the NRC will be paid to the contractor during contract closeout in increments, following the submission/settlement of indirect rate proposals in accordance with FAR 52.216-8, "Fixed Fee" (JUN 2011).

r. Total Amount Billed. Insert columns for total amounts for the current and cumulative periods.

s. Adjustments. Insert columns for any adjustments, including outstanding suspensions for deficient or defective products or nonconforming services, for the current and cumulative periods.

t. Grand Totals.

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

3. Sample Invoice/Voucher Information

Sample Invoice/Voucher Information (Supporting Documentation must be attached)

This invoice/voucher represents reimbursable costs for the billing period from _____ through _____.

| | | <u>Amount Billed</u> | |
|---------------------|---|-----------------------|-------------------|
| | | <u>Current Period</u> | <u>Cumulative</u> |
| (a) | <u>Direct Costs</u> | | |
| (1) | Direct labor | \$ _____ | \$ _____ |
| (2) | Fringe benefits (% of direct labor) | \$ _____ | \$ _____ |
| (3) | Government property (\$50,000 or more) | \$ _____ | \$ _____ |
| (4) | Government property, Materials, and Supplies (under \$50,000 per item) | \$ _____ | \$ _____ |
| (5) | Premium pay (NRC approved overtime) | \$ _____ | \$ _____ |
| (6) | Consultants Fee | \$ _____ | \$ _____ |
| (7) | Travel | \$ _____ | \$ _____ |
| (8) | Subcontracts | \$ _____ | \$ _____ |
| (9) | Other costs | \$ _____ | \$ _____ |
| Total Direct Costs: | | \$ _____ | \$ _____ |

(b) Indirect Costs (provide the rate information applicable to your firm)

| | | | |
|-----------------------|---|----------|----------|
| (10) | Overhead ____ % of _____ (Indicate Base) | \$ _____ | \$ _____ |
| (11) | General and Administrative (G&A) ____ % of _____ (Indicate Base) | \$ _____ | \$ _____ |
| Total Indirect Costs: | | \$ _____ | \$ _____ |

(c) Fixed-Fee:

- (12) Fixed-Fee Calculations:
- i. Total negotiated contract fixed-fee percent ____ and amount \$ _____
 - ii. 85% allowable fee amount \$ _____
 - iii. Cumulative fee billed on prior invoices \$ _____

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

- iv. Fee due this invoice (not to exceed 85% of fee earned based upon negotiated contract fee percentage) \$_____

Note: The fee balance withheld by NRC may not exceed \$100,000.

Total Fixed-Fee: \$_____ \$_____

(d) Total Amount Billed \$_____ \$_____

(e) Adjustments (+/-) \$_____ \$_____

(f) Grand Total \$_____ \$_____

(The invoice/voucher format provided above must include information similar to that included below in the following to ensure accuracy and completeness.)

SAMPLE SUPPORTING INFORMATION

The budget information provided below is for format purposes only and is illustrative.

Cost Elements:

- 1) Direct Labor - \$2,400

| <u>Labor Category</u> | <u>Hours Billed</u> | <u>Rate</u> | <u>Total</u> | <u>Cumulative Hours Billed</u> |
|-----------------------|---------------------|-------------|---------------|--------------------------------|
| Senior Engineer I | 100 | \$14.00 | \$1,400 | 975 |
| Engineer | 50 | \$10.00 | \$ 500 | 465 |
| Computer Analyst | 100 | \$ 5.00 | <u>\$ 500</u> | <u>320</u> |
| | | | \$2,400 | 1,760 hrs. |

- 2) Fringe Benefits - \$480

Fringe @ 20% of Direct Salaries

| <u>Labor Category</u> | <u>Salaries</u> | <u>Fringe Amount</u> |
|-----------------------|-----------------|----------------------|
|-----------------------|-----------------|----------------------|

INVOICE FORMAT FOR COST-REIMBURSEMENT CONTRACTS

Version Control Date: May 2, 2013

ATTACHMENT

BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

| | | |
|-------------------|---------------|--------------|
| Senior Engineer I | \$1,400 | \$280 |
| Engineer | \$ 500 | \$100 |
| Computer Analyst | <u>\$ 500</u> | <u>\$100</u> |
| | \$2,400 | \$480 |

3) Government-furnished and contractor-acquired property (\$50,000 or more) - \$60,000

Prototype Spectrometer - item number 1000-01 = \$60,000

4) Government-furnished and contractor-acquired property (under \$50,000), Materials, and Supplies - \$2,000

| | |
|---|-----------------|
| 10 Radon tubes @ \$110.00 | = \$1,100 |
| 6 Pairs Electrostatic gloves @ \$150.00 | = <u>\$ 900</u> |
| | \$2,000 |

5) Premium Pay - \$150

Walter Murphy - 10 hours @ \$10.00 Per Hour (Reg. Pay) = \$100 x 1.5 OT rate = \$150
(EX: Premium pay for this individual was approved and authorized under this contract by the NRC Contracting Officer by letter dated 6/1/2011.)

6) Consultants' Fee - \$100

Dr. Carney - 1 hour fully-burdened @ \$100 = \$100

7) Travel - \$2,640

(i) Airfare: (2 Roundtrip trips for 1 person @ \$300 per r/t ticket)

| <u>Start Date</u> | <u>End Date</u> | <u>Days</u> | <u>From</u> | <u>To</u> | <u>Cost</u> |
|-------------------|-----------------|-------------|------------------|------------|-------------|
| 4/1/2011 | 4/7/2011 | 7 | Philadelphia, PA | Wash, D.C. | \$300 |
| 7/1/2011 | 7/8/2011 | 8 | Philadelphia, PA | Wash, D.C. | \$300 |

(ii) Per Diem: \$136/day x 15 days = \$2,040

8) Subcontracting - \$30,000

| | |
|-----------|-------------------|
| Company A | = \$10,000 |
| Company B | = <u>\$20,000</u> |

**INVOICE FORMAT FOR COST-REIMBURSEMENT
CONTRACTS**

Version Control Date: May 2, 2013

ATTACHMENT

**BILLING INSTRUCTIONS FOR
COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)**

\$30,000

(EX: Subcontracts for Companies A & B were consented to by the Contracting Officer by letter dated 6/15/2011.)

9) Other Costs - \$5,100

Honorarium for speaker at American Nuclear Society conference = \$5,000
Nuclear Planet Journal subscription fee = \$100

10) Overhead Expense - \$41,148

Overhead @ 40% of Total Direct Costs

11) General and Administrative (G&A) Expense - \$22,784

G&A @ 20% of Total Costs, excluding subcontracts and consultants

12) Fixed-Fee - \$8,218

Fixed-Fee applied to Total Costs @ 5%

Fixed-Fee Calculations:

- i. Total contract fixed-fee \$100,000
- ii. 85% allowable fee \$85,000
- iii. Cumulative fee billed on prior invoices \$85,000
- iv. Fee due this invoice (*not to exceed 85% of fee earned based upon negotiated contract fee percentage*) \$8,218

| | |
|---------------------|------------------|
| Total Amount Billed | \$175,020 |
| Adjustments (+/-) | - <u>\$8,218</u> |
| Grand Total | \$166,802 |