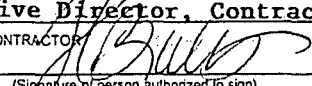
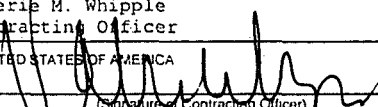


<b>AWARD/CONTRACT</b>		1. THIS CONTRACT IS RATED ORDER UNDER DPAS (15 CFR 350)		RATING N/A	PAGE 1 OF 1 PAGES
2. CONTRACT NO. (Proc. Inst. Ident.) NRC-04-10-144		3. EFFECTIVE DATE See Block 16c. below		4. REQUISITION/PURCHASE REQUEST/PROJECT NO. RES-10-144; FFS: RES-C10-701	
5. ISSUED BY U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Valerie M. Whipple, 301-492-3628 Mail Stop TWB-01-B10M Washington, DC 20555		6. ADMINISTERED BY (If other than Item 5) U.S. Nuclear Regulatory Commission Div. of Contracts Mail Stop TWB-01-B10M Washington, DC 20555		CODE 3100	
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, State and ZIP Code)  SOUTHWEST RESEARCH INSTITUTE INC  6220 CULEBRA RD  SAN ANTONIO TX 782385100				8. DELIVERY  <input type="checkbox"/> FOB ORIGIN <input checked="" type="checkbox"/> OTHER (See below)	
				9. DISCOUNT FOR PROMPT PAYMENT	
				10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN:	
CODE 007936842		FACILITY CODE		11. SHIP TO/MARK FOR U.S. Nuclear Regulatory Commission Mail Stop TWB-01-B10M Contract Management Branch No. 3 Washington DC 20555	
				12. PAYMENT WILL BE MADE BY Department of Interior/NBC, NRCPayments@nbc.gov Attn: Fiscal Services Branch - D2770 7301 W. Mansfield Avenue Denver CO 80235-2230	
13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) ( ) <input checked="" type="checkbox"/> 41 U.S.C. 253(c) ( )				14. ACCOUNTING AND APPROPRIATION DATA 060-15-111-127 V6146 252A 31X0200.060 OBLIGATE: \$300,000 FFS: RES-C10-701	
15A. ITEM NO	15B. SUPPLIES/SERVICES		15C. QUANTITY	15D. UNIT	15E. UNIT PRICE
	The Contractor shall perform the work described in the attached Statement of Work entitled "Assessment of Capabilities and Verification and Validation of Probabilistic Fracture Mechanics Computer Codes." This is a CFPP type contract. \$300,000 is obligated at this time Performance Period: Date of Award through May 31, 2011.  DUNS: 007936842				
					15F. AMOUNT
					15G. TOTAL AMOUNT OF CONTRACT \$542,568
16. TABLE OF CONTENTS See Attached Table of Contents					
(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.
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X	C	DESCRIPTION/SPECS./WORK STATEMENT	C-1	X	J
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X	F	DELIVERIES OR PERFORMANCE	F-1	L	INSTRS., CONDS., AND NOTICES TO OFFER
X	G	CONTRACT ADMINISTRATION DATA	G-1	M	EVALUATION FACTORS FOR AWARD
X	H	SPECIAL CONTRACT REQUIREMENTS	H-1		
CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE					
17. <input checked="" type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 3 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any; and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)			18. <input type="checkbox"/> AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.		
19A. NAME AND TITLE OF SIGNER (Type or print) R. B. Kalmbach Executive Director, Contracts			20A. NAME OF CONTRACTING OFFICER Valerie M. Whipple Contracting Officer		
19B. NAME OF CONTRACTOR BY  (Signature of person authorized to sign)			19C. DATE SIGNED 8/19/2010		20B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)
					20C. DATE SIGNED 8/25/10

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**PART I - THE SCHEDULE****SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS****B.1 PROJECT TITLE**

The title of this project is as follows:

ASSESSMENT OF CAPABILITIES AND VERIFICATION AND VALIDATION OF PROBABILISTIC FRACTURE MECHANICS COMPUTER CODES

**B.2 BRIEF DESCRIPTION OF WORK (MAR 1987)**

The objective of this contract is to provide technical assistance on verification and validation (V&V) activities for the FAVOR and xLPR software. Software validation is a process of demonstrating that as-built software meets the coding requirements and provides accurate results which includes the development of test plans, test procedures, acceptance criteria for comparing the software results with independent calculations, and test reports. Software verification is a process of determining whether the software design at a given phase of software development meets all the design requirements defined for that phase of development. Examples of verification activities include: formal development phase reviews and audits (e.g., software requirements review, preliminary design review, and critical design review), formal peer inspections for Level 1 software (e.g., step-by-step or line-by-line code inspection, and documentation review). Level-1 software is a technical application software used in a safety decision by the NRC, as discussed in NUREG/BR-01671<sup>1</sup> (e.g. NRC RELAP code).

**B.3 CONSIDERATION AND OBLIGATION--COST PLUS FIXED FEE (JUN 1988) ALTERNATE I (JUN 1991)**

(a) The total estimated cost to the Government for full performance of this contract is **\$542,568**, of which the sum of [REDACTED] represents the estimated reimbursable costs, and of which [REDACTED] 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 currently obligated by the Government with respect to this contract is **\$300,000**, of which the sum of [REDACTED] represents the estimated reimbursable costs, and of which [REDACTED] represents the fixed fee.

**SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**

See Attachment J-1, Statement of Work.

**SECTION D - PACKAGING AND MARKING****D.1 PACKAGING AND MARKING (MAR 1987)**

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 Interstate Commerce Commission Regulations, Uniform Freight Classification Rules, or regulations of other carriers as applicable to the mode of transportation. On the front of the package, the Contractor shall clearly identify the contract number under which the product is being provided.

**SECTION E - INSPECTION AND ACCEPTANCE****E.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE**

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

52.246-5

INSPECTION OF  
SERVICES--COST-REIMBURSEMENT

APR 1984

**E.2 PLACE OF INSPECTION AND ACCEPTANCE (MAR 1987)**

Inspection and acceptance of the deliverable items to be furnished hereunder shall be made by the Project Officer at the destination.

**SECTION F - DELIVERIES OR PERFORMANCE****F.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE**

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

NUMBER	TITLE	DATE
	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)	
52.242-15	STOP-WORK ORDER ALTERNATE I (APR 1984)	AUG 1989
52.247-34	F.O.B. DESTINATION	NOV 1991

**F.2 2052.211-70 PREPARATION OF TECHNICAL REPORTS (JAN 1993)**

All technical reports required by Section C and all Technical Progress Reports required by Section F are to be prepared in accordance with the attached Management Directive 3.7, "NUREG-Serie Publication." Management Directive 3.7 is not applicable to any Contractor Spending Plan (CSP) and any Financial Status Report that may be included in this contract. (See List of Attachments).

**F.3 2052.211-71 TECHNICAL PROGRESS REPORT (JAN 1993)**

The contractor shall provide a monthly Technical Progress Report to the project officer and the contracting officer. The report is due within 15 calendar days after the end of the report period and must identify the title of the project, the contract number, appropriate financial tracking code specified by the NRC Project Officer, project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report must include the following for each discrete task/task order:

- (a) A listing of the efforts completed during the period, and milestones reached or, if missed, an explanation provided;
- (b) Any problems or delays encountered or anticipated and recommendations for resolution. If the recommended resolution involves a contract modification, e.g., change in work requirements, level of effort (cost) or schedule delay, the contractor shall submit a separate letter to the contracting officer identifying the required change and estimated cost impact.
- (c) A summary of progress to date; and
- (d) Plans for the next reporting period.



**F.4 2052.211-72 FINANCIAL STATUS REPORT (OCT 1999)**

The contractor shall provide a monthly Financial Status Report (FSR) to the project officer and the contracting officer. The FSR shall include the acquisition of, or changes in the status of, contractor-held property acquired with government funds valued at the time of purchase at \$50,000 or more. Whenever these types of property changes occur, the contractor shall send a copy of the report to the Chief, Property and Acquisition Oversight Branch, Office of Administration. The report is due within 15 calendar days after the end of the report period and must identify the title of the project, the contract number, the appropriate financial tracking code (e.g., Job Code Number or JCN) specified by the NRC Project Officer, project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report must include the following for each discrete task:

- (a) Total estimated contract amount.
- (b) Total funds obligated to date.
- (c) Total costs incurred this reporting period.
- (d) Total costs incurred to date.
- (e) Detail of all direct and indirect costs incurred during the reporting period for the entire contract or each task, if it is a task ordering contract.
- (f) Balance of obligations remaining.
- (g) Balance of funds required to complete contract/task order.
- (h) Contractor Spending Plan (CSP) status: A revised CSP is required with the Financial Status Report whenever the contractor or the contracting officer has reason to believe that the total cost for performance of this contract will be either greater or substantially less than what had been previously estimated.
  - (1) Projected percentage of completion cumulative through the report period for the project/task order as reflected in the current CSP.
  - (2) Indicate significant changes in the original CSP projection in either dollars or percentage of completion. Identify the change, the reasons for the change, whether there is any projected overrun, and when additional funds would be required. If there have been no changes to the original NRC-approved CSP projections, a written statement to that effect is sufficient in lieu of submitting a detailed response to item "h".
- (i) Property status:
  - (1) List property acquired for the project during the month with an acquisition cost between \$500 and \$49,999. Give the item number for the specific piece of equipment.
  - (2) Provide a separate list of property acquired for the project during the month with an acquisition cost of \$50,000 or more. Provide the following information for each item of property: item description or nomenclature, manufacturer, model number, serial number, acquisition cost, and receipt date. If no property was acquired during the month, include a statement to that effect. The same information must be provided for any component or peripheral equipment which is part of a "system or system unit."

(3) For multi-year projects, in the September monthly financial status report provide a cumulative listing of property with an acquisition cost of \$50,000 or more showing the information specified in paragraph (i)(2) of this clause.

(4) In the final financial status report provide a closeout property report containing the same elements as described above for the monthly financial status reports, for all property purchased with NRC funds regardless of value unless title has been vested in the contractor. If no property was acquired under the contract, provide a statement to that effect. The report should note any property requiring special handling for security, health, safety, or other reasons as part of the report.

(j) Travel status: List the starting and ending dates for each trip, the starting point and destination, and the traveler(s) for each trip.

(k) If the data in this report indicates a need for additional funding beyond that already obligated, this information may only be used as support to the official request for funding required in accordance with the Limitation of Cost (LOC) Clause (FAR 52.232-20) or the Limitation of Funds (LOF) Clause FAR 52.232-22.

## F.5 PLACE OF DELIVERY--REPORTS (JUN 1988)

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

(a) Project Officer (electronic copies)

[Aladar.Csontos@nrc.gov](mailto:Aladar.Csontos@nrc.gov)

[Shah.Malik@nrc.gov](mailto:Shah.Malik@nrc.gov)

[Eric.Focht@nrc.gov](mailto:Eric.Focht@nrc.gov)

[David.Rudland@nrc.gov](mailto:David.Rudland@nrc.gov)

[Mark.Kirk@nrc.gov](mailto:Mark.Kirk@nrc.gov)

[RESDEMLSR.Resource@nrc.gov](mailto:RESDEMLSR.Resource@nrc.gov)

[Lisa.Bamford@nrc.gov](mailto:Lisa.Bamford@nrc.gov)

(b) Contracting Officer (1 hard copy)

Valerie Whipple, Sr. Contract Specialist

U.S. Nuclear Regulatory Commission

Mail Stop: TWB-01-B10M

Washington, DC 20555

## F.6 DURATION OF CONTRACT PERIOD (MAR 1987)

This contract shall commence on **date of award** and will expire **May 31, 2011**.

**SECTION G - CONTRACT ADMINISTRATION DATA****G.1 2052.215-71 PROJECT OFFICER AUTHORITY (NOVEMBER 2006)**

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

Name: **Shah Malik**  
Address: **U. S. Nuclear Regulatory Commission**  
**Mail Stop: CSB C5A24M**

Telephone Number: **(301) 251-7657**

(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 (SOW) or changes to specific travel identified in the SOW), fills in details, or otherwise serves to accomplish the contractual SOW.

(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, approval of 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.

(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 as 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 the contracting officer to modify the contract accordingly. Upon receiving the notification 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 thereto 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.

(4) Assist the contractor in obtaining the badges for the contractor personnel.

(5) Immediately notify the Security Branch, Division of Facilities and Security (SB/DFS) (via e-mail) when a contractor employee no longer requires access authorization and return of any NRC issued badge to SB/DFS within three days after their termination.

(6) Ensure that all contractor employees that require access to classified Restricted Data or National Security Information or matter, access to sensitive unclassified information (Safeguards, Official Use Only, and Proprietary information) access to sensitive IT systems or data, unescorted access to NRC controlled buildings/space, or unescorted access to protected and vital areas of nuclear power plants receive approval of SB/DFS prior to access in accordance with Management Directive and Handbook 12.3.

(7) For contracts for the design, development, maintenance or operation of Privacy Act Systems of Records, obtain from the contractor as part of closeout procedures, written certification that the contractor has returned to NRC, transferred to the successor contractor, or destroyed at the end of the contract in accordance with instructions provided by the NRC Systems Manager for Privacy Act Systems of Records, all records (electronic or paper) which were created, compiled, obtained or maintained under the contract.

**G.2 2052.215-78 TRAVEL APPROVALS AND REIMBURSEMENT -ALTERNATE 1 (OCT 1999)**

(a) Total expenditure for travel may not exceed **\$14,440** 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 those travel costs incurred that are directly related to this contract and which 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, shall 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.

**G.3 2052.216-71 INDIRECT COST RATES (JAN 1993)**

(a) Pending the establishment of final indirect rates which must be negotiated based on audit of actual costs, the contractor shall be reimbursed for allowable indirect costs as follows:

INDIRECT COST POOL	RATE	BASE	PERIOD
		INDIRECT COST POOL	RATE BASE PERIOD
Fringe Benefits			DOA – until revised
CNWRA O/H & G&A			DOA – until revised

(b) The contracting officer may adjust these rates as appropriate during the term of the contract upon acceptance of any revisions proposed by the contractor. It is the contractor's responsibility to notify the contracting officer in accordance with FAR 52.232-20, Limitation of Cost, or FAR 52.232-22, Limitation of Funds, as applicable, if these changes affect performance of work within the established cost or funding limitations.

**SECTION H - SPECIAL CONTRACT REQUIREMENTS****H.1 2052.209-72 CONTRACTOR ORGANIZATIONAL CONFLICTS OF INTEREST (JAN 1993)**

(a) Purpose. The primary purpose of this clause is to aid in ensuring that the contractor:

(1) Is not placed in a conflicting role because of current or planned interests (financial, contractual, organizational, or otherwise) which relate to the work under this contract; and

(2) Does not obtain an unfair competitive advantage over other parties by virtue of its performance of this contract.

(b) Scope. The restrictions described apply to performance or participation by the contractor, as defined in 48 CFR 2009.570-2 in the activities covered by this clause.

(c) Work for others.

(1) Notwithstanding any other provision of this contract, during the term of this contract, the contractor agrees to forego entering into consulting or other contractual arrangements with any firm or organization the result of which may give rise to a conflict of interest with respect to the work being performed under this contract. The contractor shall ensure that all employees under this contract abide by the provision of this clause. If the contractor has reason to believe, with respect to itself or any employee, that any proposed consultant or other contractual arrangement with any firm or organization may involve a potential conflict of interest, the contractor shall obtain the written approval of the contracting officer before the execution of such contractual arrangement.

(2) The contractor may not represent, assist, or otherwise support an NRC licensee or applicant undergoing an NRC audit, inspection, or review where the activities that are the subject of the audit, inspection, or review are the same as or substantially similar to the services within the scope of this contract (or task order as appropriate) except where the NRC licensee or applicant requires the contractor's support to explain or defend the contractor's prior work for the utility or other entity which NRC questions.

(3) When the contractor performs work for the NRC under this contract at any NRC licensee or applicant site, the contractor shall neither solicit nor perform work in the same or similar technical area for that licensee or applicant organization for a period commencing with the award of the task order or beginning of work on the site (if not a task order contract) and ending one year after completion of all work under the associated task order, or last time at the site (if not a task order contract).

(4) When the contractor performs work for the NRC under this contract at any NRC licensee or applicant site,

(i) The contractor may not solicit work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate.

(ii) The contractor may not perform work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate, and for one year thereafter.

(iii) Notwithstanding the foregoing, the contracting officer may authorize the contractor to solicit or perform this type of work (except work in the same or similar technical area) if the contracting officer determines that the situation will not pose a potential for technical bias or unfair competitive advantage.

## (d) Disclosure after award.

(1) The contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in this contract, that it does not have any organizational conflicts of interest as defined in 48 CFR 2009.570-2.

(2) The contractor agrees that if, after award, it discovers organizational conflicts of interest with respect to this contract, it shall make an immediate and full disclosure in writing to the contracting officer. This statement must include a description of the action which the contractor has taken or proposes to take to avoid or mitigate such conflicts. The NRC may, however, terminate the contract if termination is in the best interest of the Government.

(3) It is recognized that the scope of work of a task-order-type contract necessarily encompasses a broad spectrum of activities. Consequently, if this is a task-order-type contract, the contractor agrees that it will disclose all proposed new work involving NRC licensees or applicants which comes within the scope of work of the underlying contract. Further, if this contract involves work at a licensee or applicant site, the contractor agrees to exercise diligence to discover and disclose any new work at that licensee or applicant site. This disclosure must be made before the submission of a bid or proposal to the utility or other regulated entity and must be received by the NRC at least 15 days before the proposed award date in any event, unless a written justification demonstrating urgency and due diligence to discover and disclose is provided by the contractor and approved by the contracting officer. The disclosure must include the statement of work, the dollar value of the proposed contract, and any other documents that are needed to fully describe the proposed work for the regulated utility or other regulated entity. NRC may deny approval of the disclosed work only when the NRC has issued a task order which includes the technical area and, if site-specific, the site, or has plans to issue a task order which includes the technical area and, if site-specific, the site, or when the work violates paragraphs (c)(2), (c)(3) or (c)(4) of this section.

## (e) Access to and use of information.

(1) If in the performance of this contract, the contractor obtains access to information, such as NRC plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. Section 552a (1988)), or the Freedom of Information Act (5 U.S.C. Section 552 (1986)), the contractor agrees not to:

(i) Use this information for any private purpose until the information has been released to the public;

(ii) Compete for work for the Commission based on the information for a period of six months after either the completion of this contract or the release of the information to the public, whichever is first;

(iii) Submit an unsolicited proposal to the Government based on the information until one year after the release of the information to the public; or

(iv) Release the information without prior written approval by the contracting officer unless the information has previously been released to the public by the NRC.

(2) In addition, the contractor agrees that, to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. Section 552a (1988)), or the Freedom of Information Act (5 U.S.C. Section 552 (1986)), or other confidential or privileged technical, business, or financial information under this contract, the contractor shall treat the information in accordance with restrictions placed on use of the information.

(3) Subject to patent and security provisions of this contract, the contractor shall have the right to use technical data it produces under this contract for private purposes provided that all requirements of this contract have been met.

(f) Subcontracts. Except as provided in 48 CFR 2009.570-2, the contractor shall include this clause, including this paragraph, in subcontracts of any tier. The terms contract, contractor, and contracting officer, must be appropriately modified to preserve the Government's rights.

(g) Remedies. For breach of any of the above restrictions, or for intentional nondisclosure or misrepresentation of any relevant interest required to be disclosed concerning this contract or for such erroneous representations that necessarily imply bad faith, the Government may terminate the contract for default, disqualify the contractor from subsequent contractual efforts, and pursue other remedies permitted by law or this contract.

(h) Waiver. A request for waiver under this clause must be directed in writing to the contracting officer in accordance with the procedures outlined in 48 CFR 2009.570-9.

(i) Follow-on effort. The contractor shall be ineligible to participate in NRC contracts, subcontracts, or proposals therefor (solicited or unsolicited), which stem directly from the contractor's performance of work under this contract. Furthermore, unless so directed in writing by the contracting officer, the contractor may not perform any technical consulting or management support services work or evaluation activities under this contract on any of its products or services or the products or services of another firm if the contractor has been substantially involved in the development or marketing of the products or services.

(1) If the contractor, under this contract, prepares a complete or essentially complete statement of work or specifications, the contractor is not eligible to perform or participate in the initial contractual effort which is based on the statement of work or specifications. The contractor may not incorporate its products or services in the statement of work or specifications unless so directed in writing by the contracting officer, in which case the restrictions in this paragraph do not apply.

(2) Nothing in this paragraph precludes the contractor from offering or selling its standard commercial items to the Government.

## H.2 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

[REDACTED]

Title

[REDACTED]  
er

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.

### **H.3 2052.242-70 RESOLVING NRC CONTRACTOR DIFFERING PROFESSIONAL OPINIONS (AUG 2007)**

(a) The Nuclear Regulatory Commission's (NRC) policy is to support the contractor's expression of professional health and safety related concerns associated with the contractor's work for NRC that may differ from a prevailing NRC staff view, disagree with an NRC decision or policy position, or take issue with proposed or established agency practices. An occasion may arise when an NRC contractor, contractor's personnel, or subcontractor personnel believes that a conscientious expression of a competent judgement is required to document such concerns on matters directly associated with its performance of the contract. The NRC's policy is to support these instances as Differing Professional Opinions (DPOs).

(b) The procedure that will be used provides for the expression and resolution of differing professional opinions (DPOs) of health and safety-related concerns associated with the mission of the agency by NRC contractors, contractor personnel or subcontractor personnel on matters directly associated with its performance of the contract. This procedure is found in Clause 2052.242 71 of this document. The contractor shall provide a copy of the NRC DPO procedure to all of its employees performing under this contract and to all subcontractors who shall, in turn, provide a copy of the procedure to its employees. The prime contractor or subcontractor shall submit all DPOs received but need not endorse them.

### **H.4 2052.242-71 PROCEDURES FOR RESOLVING NRC CONTRACTOR DIFFERING PROFESSIONAL OPINIONS (OCT 1999)**

(a) The following procedure provides for the expression and resolution of differing professional opinions (DPOs) of health and safety-related concerns of NRC contractors and contractor personnel on matters connected to the subject of the contract. Subcontractor DPOs must be submitted through the prime contractor. The prime contractor or subcontractor shall submit all DPOs received but need not endorse them.

(b) The NRC may authorize up to ten reimbursable hours for the contractor to document, in writing, and discuss, with the DPO panel, a DPO by the contractor, the contractor's personnel, or subcontractor personnel. The contractor shall not be entitled to any compensation for effort on a DPO which exceeds the specified ten hour limit.

(c) The contractor shall notify the contracting officer before incurring costs to document a DPO. The contractor shall not begin any work on the DPO before receiving a modification to the contract from the NRC contracting officer.

The contractor shall first determine whether there are sufficient funds obligated under the contract which are available to cover the costs of writing a DPO. If there are insufficient obligated funds under the contract, the contractor shall request additional funding from the NRC contracting officer to cover the costs of preparing the DPO. If there are sufficient obligated funds under the contract, the contractor shall notify the contracting officer so that a modification can be issued that specifies the amount of funding required for the DPO.

(d) Contract funds shall not be authorized to document a differing perspective in the following examples where the use of this NRC contractor DPO process is inappropriate:

(1) Issues involving allegations of wrongdoing that should be appropriately addressed directly to the NRC Office of the Inspector General (OIG);

(2) Issues submitted anonymously. However, safety significant issues that are submitted anonymously should be addressed under NRC's Allegation Program which can be found at: [http://www.nrc.gov/about-nrc/regulatory/allegations\\_resp.html](http://www.nrc.gov/about-nrc/regulatory/allegations_resp.html)

(3) Issues that are deemed to be frivolous or otherwise not in accordance with the guidance included in NRC Management Directive (MD) 10.159, "The NRC Differing Professional Opinions Program," which can be found at: [http://www.nrc.gov/reading\\_rm/doc\\_collections/management\\_directives/volumes/vol\\_10.html](http://www.nrc.gov/reading_rm/doc_collections/management_directives/volumes/vol_10.html)

(4) Issues that have already been considered, addressed, or rejected by the NRC under these procedures, absent significant new information;

(5) Issues that are considered premature because they are still under staff review by the NRC.

(e) This procedure does not provide anonymity, nor does it provide for confidential submittal (as addressed in MD 10.159). Individuals desiring anonymity or confidentiality should contact the NRC OIG or submit the information under NRC's Allegation Program, as appropriate.

(f) Prior to submitting a DPO, the contractor or the contractor's employees are encouraged to engage in informal discussions with appropriate NRC personnel (which may include NRC staff directly involved with the issues that are the subject of concerns and the NRC Project Officer.) The contractor hereby agrees that the contractor authorizes its employees to engage in informal discussions with the appropriate NRC personnel for purposes of this clause. If the informal discussions do not resolve the contractor or the contractor's employees' concerns, the contractor shall notify the contracting officer so that a modification to the contract can be issued that authorizes the expenditure of funds for the DPO.

The contractor may initiate the DPO process by submitting a written statement directly to the NRC Differing Professional Opinions Program Manager (DPOPM), Office of Enforcement, with a copy to the Contracting Officer, Division of Contracts, Office of Administration. Each DPO submitted will be evaluated on its own merits. (Refer to (c) above before incurring any costs to initiate the DPO process.)

(g) The DPO, while being brief, must contain the following as it relates to the subject matter of the contract:

(1) A summary of the prevailing NRC view, existing NRC decision or stated position, or the proposed or established NRC practice.

(2) A description of the submitter's views and how they differ from any of the above items.

(3) The rationale for the submitter's views, including an assessment of the consequences should the submitter's position not be adopted by NRC.

(4) References to, or copies of, relevant documents.

(h) The DPOPM will screen the DPO and notify the submitter and the contractor if the DPO is accepted. Returned DPOs will identify the reason for return.

(i) The DPOPM will forward the DPO to the Office Director or Regional Administrator responsible for the contract for disposition.

(j) The Office Director or Regional Administrator will establish an ad hoc panel of NRC employees to review the DPO.

(k) The panel will interview the submitter to ensure that the panel understands the issues and to define the scope of the review. The panel will gather information, review documents, and conduct interviews to support a thorough review. The panel will provide a written report of its findings to the Office Director or Regional Administrator and to the Contracting Officer, which includes a recommended course of action.

(l) The Office Director or Regional Administrator will consider the DPO panel's report, make a decision on the DPO and provide a written decision to the contractor and the Contracting Officer. The DPO is considered final and closed when the DPO Decision is issued.

(m) A summary of the issue and its disposition will be included in the NRC Weekly Information Report.

(n) DPOs will be dispositioned in accordance with the time frames identified in MD 10.159.

(o) The DPOPM will track follow up actions and notify the contractor of any schedule revisions.

(p) The availability of DPO records will reflect the submitter's wishes (e.g., whether the records should or should not be made public and whether the submitter's identity is redacted) and be consistent with NRC practices for making records available to the public.

(q) For purposes of the contract, the DPO shall be considered a deliverable under the contract.

## **H.5 GOVERNMENT FURNISHED EQUIPMENT/PROPERTY - NONE PROVIDED (JUN 1988)**

The Government will not provide any equipment/property under this contract.

## **H.6 LICENSE FEE RECOVERY COSTS (APR 1992)**

Included as an attachment in Section J are billing instructions for license fee recovery costs. This information must be submitted by the contractor in conjunction with the monthly invoice.

## H.7 SEAT BELTS

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

## H.8 ANNUAL AND FINAL CONTRACTOR PERFORMANCE EVALUATIONS

Annual and final evaluations of contractor performance under this contract will be prepared in accordance with FAR 42.15, "Contractor Performance Information," normally at the time the contractor is notified of the NRC's intent to exercise the contract option. If the multi-year contract does not have option years, then an annual evaluation will be prepared (state time for annual evaluation). Final evaluations of contractor performance will be prepared at the expiration of the contract during the contract closeout process.

The Contracting Officer will transmit the NRC Project Officer's annual and final contractor performance evaluations to the contractor's Project Manager, unless otherwise instructed by the contractor. The contractor will be permitted thirty days to review the document. The contractor may concur without comment, submit additional information, or request a meeting to discuss the performance evaluation. The Contracting Officer may request the contractor's Project Manager to attend a meeting to discuss the performance evaluation.

Where a contractor concurs with, or takes no exception to an annual performance evaluation, the Contracting Officer will consider such evaluation final and releasable for source selection purposes. Disagreements between the parties regarding a performance evaluation will be referred to an individual one level above the Contracting Officer, whose decision will be final.

The Contracting Officer will send a copy of the completed evaluation report, marked "For Official Use Only," to the contractor's Project Manager for their records as soon as practicable after it has been finalized. The completed evaluation report also will be used as a tool to improve communications between the NRC and the contractor and to improve contract performance.

The completed annual performance evaluation will be used to support future award decisions in accordance with FAR 42.1502(a) and 42.1503(c). During the period the information is being used to provide source selection information, the completed annual performance evaluation will be released to only two parties - the Federal government personnel performing the source selection evaluation and the contractor under evaluation if the contractor does not have a copy of the report already.

## H.9 COMPLIANCE WITH U.S. IMMIGRATION LAWS AND REGULATIONS

NRC contractors are responsible to ensure that their alien personnel are not in violation of United States Immigration and Naturalization (INS) laws and regulations, including employment authorization documents and visa requirements. Each alien employee of the Contractor must be lawfully admitted for permanent residence as evidenced by Alien Registration Receipt Card Form 1-151 or must present other evidence from the Immigration and Naturalization Services that employment will not affect his/her immigration status. The INS Office of Business Liaison (OBL) provides information to contractors to help them understand the employment eligibility verification process for non-US citizens. This information can be found on the INS website, <http://www.ins.usdoj.gov/graphics/services/employerinfo/index.htm#obl>.

The NRC reserves the right to deny or withdraw Contractor use or access to NRC facilities or its equipment/services, and/or take any number of contract administrative actions (e.g., disallow costs, terminate for cause) should the Contractor violate the Contractor's responsibility under this clause.

(End of Clause)

## **H.10 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.

## **H.11. FACSIMILE/ELECTRONIC SIGNATURE**

Either party may execute the contract and any additional documents including, but not limited to, modifications, and representations and certifications related to the contract by facsimile or electronic signature. The other party shall be entitled to rely on such facsimile or electronic signature as evidence that the contract has been duly executed by and authorized representative. Further, neither party shall contest the validity of the contract based on the use of facsimile or electronic signatures

**PART II - CONTRACT CLAUSES****SECTION I - CONTRACT CLAUSES****I.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE**

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

NUMBER	TITLE	DATE
	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)	
52.202-1	DEFINITIONS	JUL 2004
52.203-3	GRATUITIES	APR 1984
52.203-5	COVENANT AGAINST CONTINGENT FEES	APR 1984
52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	SEP 2006
52.203-7	ANTI-KICKBACK PROCEDURES	JUL 1995
52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	SEP 2007
52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER	AUG 2000
52.204-7	CENTRAL CONTRACTOR REGISTRATION	APR 2008
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	SEP 2006
52.215-2	AUDIT AND RECORDS--NEGOTIATION	MAR 2009
52.215-8	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT	OCT 1997
52.215-10	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA	OCT 1997
52.215-12	SUBCONTRACTOR COST OR PRICING DATA	OCT 1997
52.215-14	INTEGRITY OF UNIT PRICES	OCT 1997
52.215-15	PENSION ADJUSTMENTS AND ASSET REVERSIONS (JAN 2004)	OCT 2004
52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (PRB)	JUL 2005
52.215-19	NOTIFICATION OF OWNERSHIP CHANGES	OCT 1997
52.216-8	FIXED-FEE	MAR 1997

52.216-11	COST CONTRACT--NO FEE ALTERNATE I (APR 1984)	APR 1984
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	MAY 2004
52.219-9B	SMALL BUSINESS SUBCONTRACTING PLAN ALTERNATE II (OCT 2001)	APR 2008
52.219-16	LIQUIDATED DAMAGES--SMALL BUSINESS SUBCONTRACTING PLAN	JAN 1999
52.222-3	CONVICT LABOR	JUN 2003
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB 1999
52.222-26	EQUAL OPPORTUNITY	MAR 2007
52.222-35	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	SEP 2006
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN 1998
52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	SEP 2006
52.222-50	COMBATING TRAFFICKING IN PERSONS	FEB 2009
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN 2008
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	DEC 2007
52.227-11	PATENT RIGHTS -- OWNERSHIP BY THE CONTRACTOR	DEC 2007
52.227-14	RIGHTS IN DATA--GENERAL	DEC 2007
52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS	MAR 1996
52.230-2	COST ACCOUNTING STANDARDS	OCT 2008
52.230-6	ADMINISTRATION OF COST ACCOUNTING STANDARDS	MAR 2008
52.232-17	INTEREST	OCT 2008
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-24	PROHIBITION OF ASSIGNMENT OF CLAIMS	JAN 1986
52.232-25	PROMPT PAYMENT	OCT 2008
52.232-33	PAYMENT BY ELECTRONIC FUNDS--CENTRAL CONTRACTOR REGISTRATION	OCT 2003
52.233-1	DISPUTES ALTERNATE I (DEC 1991)	JUL 2002
52.233-3	PROTEST AFTER AWARD ALTERNATE I (JUN 1985)	AUG 1996
52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT 2004
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAY 2001
52.242-4	CERTIFICATION OF FINAL INDIRECT COSTS	JAN 1997
52.242-13	BANKRUPTCY	JUL 1995
52.243-2	CHANGES--COST REIMBURSEMENT ALTERNATE V (APR 1984)	AUG 1987
52.244-2A	SUBCONTRACTS ALTERNATE I (JUNE 2007)	JUN 2007
52.244-5	COMPETITION IN SUBCONTRACTING	DEC 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	AUG 2009
52.245-1B	GOVERNMENT PROPERTY	JUN 2007

	ALTERNATE II (JUNE 2007)	
52.245-9	USE AND CHARGES	JUN 2007
52.246-24	LIMITATION OF LIABILITY--HIGH-VALUE ITEMS	FEB 1997
52.246-25	LIMITATION OF LIABILITY--SERVICES	FEB 1997
52.248-1	VALUE ENGINEERING	FEB 2000
52.249-6	TERMINATION (COST-REIMBURSEMENT)	MAY 2004
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

## I.2 52.216-7 ALLOWABLE COST AND PAYMENT (DEC 2002)

### (a) Invoicing.

(1) The Government will make payments to the Contractor when requested as work progresses, but (except for small business concerns) not more often than once every 2 weeks, in amounts determined to be allowable by the Contracting Officer in accordance with Federal Acquisition Regulation (FAR) Subpart 31.7 in effect on the date of this contract and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.

(2) Contract financing payments are not subject to the interest penalty provisions of the Prompt Payment Act. Interim payments made prior to the final payment under the contract are contract financing payments, except interim payments if this contract contains Alternate I to the clause at 52.232-25.

(3) The designated payment office will make interim payments for contract financing on the day after the designated billing office receives a proper payment request.

In the event that the Government requires an audit or other review of a specific payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date.

### (b) Reimbursing costs.

(1) For the purpose of reimbursing allowable costs (except as provided in paragraph (b)(2) of the clause, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term "costs" includes only--

(i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract;

(ii) When the Contractor is not delinquent in paying costs of contract performance in the ordinary course of business, costs incurred, but not necessarily paid, for--

(A) Supplies and services purchased directly for the contract and associated financing payments to subcontractors, provided payments determined due will be made--

(1) In accordance with the terms and conditions of a subcontract or invoice; and

(2) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government;

(B) Materials issued from the Contractor's inventory and placed in the production process for use on the contract;



(C) Direct labor;

(D) Direct travel;

(E) Other direct in-house costs; and

(F) Properly allocable and allowable indirect costs, as shown in the records maintained by the Contractor for purposes of obtaining reimbursement under Government contracts; and

(iii) The amount of financing payments that have been paid by cash, check, or other forms of payment to subcontractors.

(2) Accrued costs of Contractor contributions under employee pension plans shall be excluded until actually paid unless-

(i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and

(ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's indirect costs for payment purposes).

(3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) of this clause, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) of this clause.

(4) Any statements in specifications or other documents incorporated in this contract by reference designating performance of services or furnishing of materials at the Contractor's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) Small business concerns. A small business concern may receive more frequent payments than every 2 weeks.

(d) Final indirect cost rates.

(1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with Subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.

(2)(i) The Contractor shall submit an adequate final indirect cost rate proposal to the Contracting Officer (or cognizant Federal agency official) and auditor within the 6-month period following the expiration of each of its fiscal years. Reasonable extensions, for exceptional circumstances only, may be requested in writing by the Contractor and granted in writing by the Contracting Officer. The Contractor shall support its proposal with adequate supporting data.

(ii) The proposed rates shall be based on the Contractor's actual cost experience for that period. The appropriate Government representative and the Contractor shall establish the final indirect cost rates as promptly as practical after receipt of the Contractor's proposal.

(3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify (i) the agreed-upon final annual indirect cost rates, (ii) the bases to which the rates apply, (iii) the periods for which the rates apply, (iv) any specific indirect cost items treated as direct costs in the settlement, and (v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates. The

understanding shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

(4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.

(5) Within 120 days (or longer period if approved in writing by the Contracting Officer) after settlement of the final annual indirect cost rates for all years of a physically complete contract, the Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates.

(6)(i) If the Contractor fails to submit a completion invoice or voucher within the time specified in paragraph (d)(5) of this clause, the Contracting Officer may--

(A) Determine the amounts due to the Contractor under the contract; and

(B) Record this determination in a unilateral modification to the contract.

(ii) This determination constitutes the final decision of the Contracting Officer in accordance with the Disputes clause.

(e) Billing rates. Until final annual indirect cost rates are established for any period, the Government shall reimburse the Contractor at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates--

(1) Shall be the anticipated final rates; and

(2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) Quick-closeout procedures. Quick-closeout procedures are applicable when the conditions in FAR 42.708(a) are satisfied.

(g) Audit. At any time or times before final payment, the Contracting Officer may have the Contractor's invoices or vouchers and statements of cost audited. Any payment may be (1) reduced by amounts found by the Contracting Officer not to constitute allowable costs or (2) adjusted for prior overpayments or underpayments.

(h) Final payment. (1) Upon approval of a completion invoice or voucher submitted by the Contractor in accordance with paragraph (d)(5) of this clause, and upon the Contractor's compliance with all terms of this contract, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.

(2) The Contractor shall pay to the Government any refunds, rebates, credits, or other amounts (including interest, if any) accruing to or received by the Contractor or any assignee under this contract, to the extent that those amounts are properly allocable to costs for which the Contractor has been reimbursed by the Government. Reasonable expenses incurred by the Contractor for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this contract, the Contractor and each assignee whose assignment is in effect at the time of final payment shall execute and deliver--

(i) An assignment to the Government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Contractor has been reimbursed by the Government under this contract; and

(ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, except--

(A) Specified claims stated in exact amounts, or in estimated amounts when the exact amounts are not known;

(B) Claims (including reasonable incidental expenses) based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided, that the claims are not known to the Contractor on the date of the execution of the release, and that the Contractor gives notice of the claims in writing to the Contracting Officer within 6 years following the release date or notice of final payment date, whichever is earlier; and

(C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Contractor under the patent clauses of this contract, excluding, however, any expenses arising from the Contractor's indemnification of the Government against patent liability.

### **I.3 52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (APR 2009)**

(a) Definitions. As used in this clause-

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall rerepresent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts-

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at <http://www.sba.gov/services/contractingopportunities/sizestandardsttopics/>.

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the rerepresentation required by paragraph (b) of this clause by validating or updating all its representations in the Online Representations and Certifications Application and its data in the Central Contractor Registration, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in ORCA, or does not have a representation in ORCA for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

The Contractor represents that it [ ] is, [ ] is not a small business concern under NAICS Code assigned to contract number .

[Contractor to sign and date and insert authorized signer's name and title].

#### **I.4 52.222-39 NOTIFICATION OF EMPLOYEE RIGHTS CONCERNING PAYMENT OF UNION DUES OR FEES (DEC 2004)**

(a) Definition. As used in this clause--

"United States" means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) Except as provided in paragraph (e) of this clause, during the term of this contract, the Contractor shall post a notice, in the form of a poster, informing employees of their rights concerning union membership and payment of union dues and fees, in conspicuous places in and about all its plants and offices, including all places where notices to employees are customarily posted. The notice shall include the following information (except that the information pertaining to National Labor Relations Board shall not be included in notices posted in the plants or offices of carriers subject to the Railway Labor Act, as amended (45 U.S.C. 151-188)).

##### **Notice to Employees**

Under Federal law, employees cannot be required to join a union or maintain membership in a union in order to retain their jobs. Under certain conditions, the law permits a union and an employer to enter into a union-security agreement requiring employees to pay uniform periodic dues and initiation fees. However,

employees who are not union members can object to the use of their payments for certain purposes and can only be required to pay their share of union costs relating to collective bargaining, contract administration, and grievance adjustment.

If you do not want to pay that portion of dues or fees used to support activities not related to collective bargaining, contract administration, or grievance adjustment, you are entitled to an appropriate reduction in your payment. If you believe that you have been required to pay dues or fees used in part to support activities not related to collective bargaining, contract administration, or grievance adjustment, you may be entitled to a refund and to an appropriate reduction in future payments.

For further information concerning your rights, you may wish to contact the National Labor Relations Board (NLRB) either at one of its Regional offices or at the following address or toll free number:

National Labor Relations Board  
Division of Information  
1099 14th Street, N.W.  
Washington, DC 20570  
1-866-667-6572  
1-866-316-6572 (TTY)

To locate the nearest NLRB office, see NLRB's website at <http://www.nlr.gov>.

(c) The Contractor shall comply with all provisions of Executive Order 13201 of February 17, 2001, and related implementing regulations at 29 CFR Part 470, and orders of the Secretary of Labor.

(d) In the event that the Contractor does not comply with any of the requirements set forth in paragraphs (b), (c), or (g), the Secretary may direct that this contract be cancelled, terminated, or suspended in whole or in part, and declare the Contractor ineligible for further Government contracts in accordance with procedures at 29 CFR Part 470, Subpart B--Compliance Evaluations, Complaint Investigations and Enforcement Procedures. Such other sanctions or remedies may be imposed as are provided by 29 CFR Part 470, which implements Executive Order 13201, or as are otherwise provided by law.

(e) The requirement to post the employee notice in paragraph (b) does not apply to--

(1) Contractors and subcontractors that employ fewer than 15 persons;

(2) Contractor establishments or construction work sites where no union has been formally recognized by the Contractor or certified as the exclusive bargaining representative of the Contractor's employees;

(3) Contractor establishments or construction work sites located in a jurisdiction named in the definition of the United States in which the law of that jurisdiction forbids enforcement of union-security agreements;

(4) Contractor facilities where upon the written request of the Contractor, the Department of Labor Deputy Assistant Secretary for Labor-Management Programs has waived the posting requirements with respect to any of the Contractor's facilities if the Deputy Assistant Secretary finds that the Contractor has demonstrated that--

(i) The facility is in all respects separate and distinct from activities of the Contractor related to the performance of a contract; and

(ii) Such a waiver will not interfere with or impede the effectuation of the Executive order; or

(5) Work outside the United States that does not involve the recruitment or employment of workers within the United States.

(f) The Department of Labor publishes the official employee notice in two variations; one for contractors covered by the Railway Labor Act and a second for all other contractors. The Contractor shall--

(1) Obtain the required employee notice poster from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW, Room N-5605, Washington, DC 20210, or from any field office of the Department's Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Download a copy of the poster from the Office of Labor- Management Standards website at <http://www.olms.dol.gov>; or

(3) Reproduce and use exact duplicate copies of the Department of Labor's official poster.

(g) The Contractor shall include the substance of this clause in every subcontract or purchase order that exceeds the simplified acquisition threshold, entered into in connection with this contract, unless exempted by the Department of Labor Deputy Assistant Secretary for Labor-Management Programs on account of special circumstances in the national interest under authority of 29 CFR 470.3(c). For indefinite quantity subcontracts, the Contractor shall include the substance of this clause if the value of orders in any calendar year of the subcontract is expected to exceed the simplified acquisition threshold. Pursuant to 29 CFR Part 470, Subpart B--Compliance Evaluations, Complaint Investigations and Enforcement Procedures, the Secretary of Labor may direct the Contractor to take such action in the enforcement of these regulations, including the imposition of sanctions for noncompliance with respect to any such subcontract or purchase order. If the Contractor becomes involved in litigation with a subcontractor or vendor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

## **I.5 52.249-14 EXCUSABLE DELAYS (APR 1984)**

(a) Except for defaults of subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these causes are (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor. "Default" includes failure to make progress in the work so as to endanger performance.

(b) If the failure to perform is caused by the failure of a subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless--

(1) The subcontracted supplies or services were obtainable from other sources;

(2) The Contracting Officer ordered the Contractor in writing to purchase these supplies or services from the other source; and

(3) The Contractor failed to comply reasonably with this order.

(c) Upon request of the Contractor, the Contracting Officer shall ascertain the facts and extent of the failure. If the Contracting Officer determines that any failure to perform results from one or more of the causes above,

the delivery schedule shall be revised, subject to the rights of the Government under the termination clause of this contract.

#### **I.6 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>

## PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

## SECTION J - LIST OF ATTACHMENTS

ATTACHMENT. NUMBER	TITLE	DATE	NO. PAGES
1	STATEMENT OF WORK/SPECIFICATION		
2	BILLING INSTRUCTIONS		
1	CONTRACTOR SPENDING PLAN		
2	WEBSITE FOR MANAGEMENT DIRECTIVE 3.7: <a href="http://www.nrc.gov/reading-rm/doc-collections/management-directives/volumes/vol-3.html">http://www.nrc.gov/reading-rm/doc-collections/management-directives/volumes/vol-3.html</a>		



PROJECT TITLE: ASSESSMENT OF CAPABILITIES AND VERIFICATION AND  
VALIDATION OF PROBABILISTIC FRACTURE MECHANICS  
COMPUTER CODES

JOB CODE: V6146

B&R NUMBER: 60-15-111-127

ISSUING OFFICE: Office of Nuclear Regulatory Research

NRC TECHNICAL PROJECT  
MANAGER (TPM): Shah Malik (301) 251-7657

## 1.0 BACKGROUND

As a part of on-going projects aimed at estimating and controlling the risk of rupture of the primary system pressure vessel and piping in nuclear power plants, NRC has commissioned the development of probabilistic fracture mechanics (PFM) simulation software: FAVOR (Fracture Analysis of Vessels – Oak Ridge), xLPR-SIAM (Extremely Low Probability of Rupture – Structural Integrity Analysis Modular), and xLPR-GoldSim (Extremely Low Probability of Rupture – GoldSim). Verification and validation (V&V) of these codes are essential to ensuring that the codes are providing reasonable results.

FAVOR is planned to be used in evaluating the structural integrity of potential flaws in irradiation embrittled reactor pressure vessels of different radius to thickness ratios covering domestic pressurized and boiling water reactors (PWRs and BWRs), subjected to pressure-temperature transient loadings.

The xLPR-SIAM and xLPR-GoldSim codes have a similar goal, which is to estimate the probability of piping rupture for representative loadings scenarios and active degradation mechanisms. Recognizing that the NRC's, and the technical community's, understanding of this issue will evolve over time both codes are being developed in a modular fashion to facilitate their future modification and long-term utility. The key difference between the codes is that one is being developed using commercially available software (xLPR-GoldSim), while the other is being developed from open source materials (xLPR-SIAM). The initial "alpha" versions of both software programs is planned to be completed by second quarter 2010.

## 2.0 OBJECTIVE

The objective of this contract is to provide technical assistance on verification and validation (V&V) activities for the FAVOR and xLPR software. Software validation is a process of demonstrating that as-built software meets the coding requirements and provides accurate results which includes the development of test plans, test procedures, acceptance criteria for comparing the software results with independent calculations, and test reports. Software verification is a process of determining whether the software design at a given phase of software development meets all the design requirements defined for that phase of development. Examples of verification activities include: formal development phase reviews and audits (e.g., software requirements review, preliminary design review, and critical design review), formal

peer inspections for Level 1 software (e.g., step-by-step or line-by-line code inspection, and documentation review). Level-1 software is a technical application software used in a safety decision by the NRC, as discussed in NUREG/BR-0167<sup>1</sup> (e.g. NRC RELAP code).

### 3.0 SCOPE OF WORK

#### Task 1. Perform V&V of FAVOR Version 09.1 Code

- a) Meet with NRC, industry, and national lab personnel for a briefing on the overall aims of V&V of the new features in FAVOR Version 09.1 code.
- b) Survey, collect, and consolidate NRC and industry input on the new features in FAVOR Version 09.1 code, and develop a draft software V&V plan for the FAVOR Version 09.1 code as per guidance in NRC NUREG/BR-0167.
- c) After the NRC reviews the draft software V&V plan, incorporate appropriate changes to the V&V plan and perform V&V of the FAVOR Version 09.1 code

Deliverable: Provide a Technical Letter Report (TLR) to NRC on the results of the V&V within 6 months of project initiation.

#### Task 2. Perform V&V of the xLPR-SIAM and xLPR-GoldSim alpha Codes

- a) Meet with NRC, industry, and national lab personnel for a briefing on the overall aims of V&V of the xLPR-SIAM and xLPR-GoldSim codes.
- b) Survey, collect, and consolidate NRC and industry input on the features in both xLPR alpha codes and develop a draft software V&V plan as per guidance in NRC NUREG/BR-0167 or other documents.
- c) After the NRC reviews the draft software V&V plan, incorporate appropriate changes to the V&V plan and perform V&V of both xLPR alpha codes.

Deliverables: Provide a preliminary TLR to NRC on the results of the V&V within 7 months of project initiation.

Provide a TLR to NRC on the results of the V&V within 9 months of project initiation.

#### Task 3. Perform Comparison of the xLPR-SIAM and xLPR-GoldSim Codes

- a) Meet with NRC, industry, and national lab personnel for a briefing on the overall aims and initial software comparison protocol of the xLPR-SIAM and xLPR-GoldSim codes (see example protocol input in Figure 1).
- b) Survey, collect, consolidate, and prioritize the NRC and industry input for the xLPR comparison protocol which includes the metrics for code comparison and specific assessment procedures.
- c) Incorporate NRC and industry comments, changes, and modifications on the comparison protocol and provide a draft technical letter report to the NRC describing the

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<sup>1</sup> NUREG/BR-0167: "Software Quality Assurance Program and Guidelines," February 1993 (NRC ADAMS Accession No. ML012750471)

xLPR software comparison protocol.

Deliverables: Provide a preliminary TLR to NRC on the results of the comparison within 7 months of project initiation.

Provide a TLR to NRC on the results of comparison within 9 months of project initiation.

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### Figure 1. Example Software Comparison Features

1. Ease of Use:
    - a. Time required to complete given problem statement(s)
    - b. Simplicity of input and output of data/information
  2. Run Time:
    - a. Time to complete various problems with multiple levels of complexities
  3. User "Friendliness" of Interface:
    - a. Qualitative judgment (e.g. 1-5 ranking) provided by various users
  4. Flexibility / Adaptability of Software:
    - a. Assess task of coding a new module into both xLPR codes
    - b. Coding time: time for software developers to create a new module for a new degradation mechanism, debug/re-compile, and ensure quality assurance of module into the larger working version of the xLPR code
  5. Ease of configuration management
    - a. Ease of Document Control
    - b. Ease of Version Control
    - c. Ease of V&V
- 

#### 4.0 PERSONNEL QUALIFICATIONS

The contractor personnel shall have expertise in the following areas: software design and maintenance, computational techniques, statistical and probabilistic methods, fracture mechanics, structural mechanics, environmental degradation, and software quality assurance and configuration management.

#### 5.0 PERIOD OF PERFORMANCE AND LEVEL OF EFFORT

The period of performance is 9 months from project initiation. It is anticipated that this effort will take approximately 2,800 hours.

## 6.0 MEETINGS AND TRAVEL

This project may require up to four trips of two days each for one person to Rockville, MD or an NRC-designated location to provide expertise related to this program.

## 7.0 NRC FURNISHED MATERIALS

NRC will provide no materials as part of this program.

## 8.0 DELIVERABLE REQUIREMENTS

### Monthly Letter Status Report

A Monthly Letter Status Report (MLSR) is to be submitted to the TPM by the 20<sup>th</sup> of the month following the month to be reported with copies provided to the following:

Aladar.Csontos@nrc.gov  
Shah.Malik@nrc.gov  
Eric.Focht@nrc.gov  
David.Rudland@nrc.gov  
Mark.Kirk@nrc.gov  
RESDEMLSR.Resource@nrc.gov  
Lisa.Bamford@nrc.gov

The MLSR will identify the title of the project, the job code, the Principal Investigator, the period of performance, the reporting period, summarize each month's technical progress, list monthly spending, total spending to date, and the remaining funds and will contain information as directed in NRC Management Directive 11.1, Exhibit 7 (dated March 2, 2007). Any administrative or technical difficulties which may affect the schedule or costs of the project shall be immediately brought to the attention of the TPM.

### Technical Letter Reports

- Task 1: Provide a technical letter report (TLR) to NRC on the results of the V&V of FAVOR Version 09.1 code within 6 months of project initiation.
- Task 2: Provide a preliminary TLR to NRC on the results of the V&V of xLPR-SIAM and xLPR- GoldSim alpha codes within 7 months of project initiation.  
Provide a final TLR to NRC on the results of the V&V of xLPR-SIAM and xLPR- GoldSim alpha codes within 9 months of project initiation.
- Task 3: Provide a preliminary TLR to NRC on the results of the comparison of xLPR-SIAM and xLPR-GoldSim alpha codes within 7 months of project initiation.  
Provide a final TLR to NRC on the results of the comparison of xLPR-

SIAM and xLPR-GoldSim alpha codes within 9 months of project initiation.

## 9.0 TECHNICAL/PROJECT DIRECTION

NRC PM for this contract is:

Shah Malik  
U.S. Nuclear Regulatory Commission  
Office of Nuclear Regulatory Research  
Division of Engineering  
Mail Stop: C05C07M  
Washington, D.C. 20555-001  
301-251-7657  
[shah.malik@nrc.gov](mailto:shah.malik@nrc.gov)

Technical instructions may not constitute new assignments of work or changes of such a nature as to justify an adjustment in cost or period of performance. The NRC TPM is responsible for providing technical guidance to the contractor regarding staff interpretations of the technical aspects of regulatory requirements along with copies of relevant documents when requested by the contractor. All work products must be reviewed and approved by the NRC TPM before they are submitted as final documents. All technical direction given to the contractor must be consistent with the work scope and schedule. The NRC TPM is not authorized to unilaterally make changes to the approved work scope or schedule or give the contractor any direction that would increase costs over approved levels.

**BILLING INSTRUCTIONS FOR  
COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)**

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

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

**Number of Copies:** A signed original and supporting documentation shall be submitted. If the voucher/invoice includes the purchase of any property with an initial acquisition cost of \$50,000 or more, a copy of the signed original is also required.

**Designated Agency Billing Office:** The preferred method of submitting vouchers/invoices is electronically to the Department of the Interior at [NRCPayments@nbc.gov](mailto:NRCPayments@nbc.gov)

If the voucher/invoice includes the purchase of capital property with an initial acquisition cost of \$50,000 or more, a copy of the signed original shall be electronically sent to: [Property@nrc.gov](mailto:Property@nrc.gov)

However, if you submit a hard-copy of the voucher/invoice, it shall be submitted to the following address:

Department of the Interior  
National Business Center  
Attn: Fiscal Services Branch - D2770  
7301 West Mansfield Avenue  
Denver, CO 80235-2230

If you submit a hard-copy of the voucher/invoice and it includes the purchase of capital property with an initial acquisition cost of \$50,000 or more, a copy of the signed original shall be mailed to the following address:

U.S. Nuclear Regulatory Commission  
NRC Property Management Officer  
Mail Stop: O-4D15  
Washington, DC 20555-0001

HAND-CARRIED SUBMISSIONS WILL NOT BE ACCEPTED

**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.

**BILLING INSTRUCTIONS FOR  
COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)**

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

**Format:** Claims shall be submitted in the format depicted on the attached sample form entitled "Voucher/Invoice for Purchases and Services Other than Personal" (see Attachment 1). The sample format is provided for guidance only. The format is not required for submission of a voucher/invoice. Alternate formats are permissible provided all requirements of the billing instructions are addressed. The instructions for preparation and itemization of the voucher/invoice are included with the sample form.

**Task Ordering Contracts:** If the contractor bills for more than one task order under a voucher/invoice, detailed cost information for each individual task order shall be submitted, together with a cumulative summary of all charges billed on the voucher/invoice. This includes all applicable cost elements discussed in paragraphs (a) through (n) of the attached instructions.

**Fee Recovery Billings:** Pursuant to the provisions of 10 CFR Part 170 and 171 on license fees, the NRC must recover the cost of work performed. Accordingly, the contractor must provide the total amount of funds billed during the period, fiscal year to date and the cumulative total for each task or task assignment by facility or report. The fee recovery billing reports shall be on a separate page, and shall be in the format provided (see Attachment 1). The billing period for fee recovery costs should be from the first day of each calendar month to the last day of the same month. Each separate fee billing report must be attached to the monthly invoice and cover the same period as the invoice.

Each report will contain a docket number or other unique identifier. The NRC will provide a unique identifier for all work performed. Costs should be reported as whole number to the nearest cent. For work that involves more than one facility at the same site, each facility should be listed separately and the costs should be split appropriately between the facilities. Common costs, as defined below, shall be identified as a separate line item in the fee recovery billing report each month.

Common costs are those costs that are not licensee unique and associated with the performance of an overall program that benefit all similar licensees covered under that program or that are required to satisfactorily carry out the program. Common costs include costs associated with the following: preparatory or start-up efforts to interpret and reach agreement on methodology, approach, acceptance criteria, regulatory position, or technical reporting requirements; efforts associated with the "lead plant" concept that might be involved during the first one or two plant reviews; meetings and discussions involving the above efforts to provide orientation, background knowledge or guidance during the course of a program; any technical effort applied to a docket or other unique identifier; and project management. Common costs must be reporting monthly for each docket or unique identifier. Common costs must be

**BILLING INSTRUCTIONS FOR  
COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)**

computed based on the proportion of direct costs incurred against each docket or unique identifier for the billing period.

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

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

**Currency:** Billings may be expressed in the currency normally used by the contractor in maintaining his accounting records and payments will be made in that currency. However, the U.S. dollar equivalent for all vouchers/invoices paid under the contract may not exceed the total U.S. dollars authorized in the contract.

Supersession: These instructions supersede any previous billing instructions.

R:\txtselden\billing instructions CR revised 2008



(SAMPLE FORMAT)

COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)  
INVOICE/ VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

**1. Official Agency Billing Office**

Department of the Interior  
National Business Center  
Attn: Fiscal Services Branch - D2770  
7301 West Mansfield Avenue  
Denver, CO 80235-2230

**2. 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. 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 Central Contractor Registration (CCR) database at <http://www.ccr.gov> and shall be paid by EFT in accordance with the terms of this contract. See Federal Acquisition Regulation 52.232-33(g) Payment by Electronic Funds Transfer - Central Contractor Registration (October 2003).

c. Contract Number. Insert the NRC contract number.  
Task Order No. Insert the task order number (If Applicable).

d. Voucher/Invoice. The appropriate sequential number of the voucher/invoice, 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.

e. Date of Voucher/Invoice. Insert the date the voucher/invoice is prepared.

f. Billing period. Insert the beginning and ending dates (day, month, year) of the period during which costs were incurred and for which reimbursement is claimed.

(SAMPLE FORMAT)

**COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)**  
**INVOICE/ VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL**

g. 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>Hrs.</u> <u>Billed</u>	<u>Rate</u>	<u>Total</u>	<u>Cumulative</u> <u>Hrs.Billed</u>
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- (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) Capitalized Non Expendable Equipment. 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) the item number for the specific piece of equipment listed in the property schedule of the contract; or (b) the Contracting Officer's approval letter if the equipment is not covered by the property schedule.

- (4) Non-capitalized Equipment, Materials, and Supplies. These are equipment other than that described in (3) above, plus consumable materials, 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) Consultants. 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	\$

- (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.

(SAMPLE FORMAT)

**COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)**  
**INVOICE/ VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL**

h. 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 claimed.

i. Fixed Fee. If the contract provides for a fixed fee, it must be claimed as provided for by the contract. Cite the formula or method of computation. Include this information as it applies to individual task orders as well.

The contractor may bill for fixed fee only up to 85% of total fee.

j. Total Amount Billed. Insert the total amounts claimed for the current and cumulative periods.

k. Adjustments. For cumulative amount, include outstanding suspensions.

l. Grand Totals.

Further itemization of vouchers/invoices shall only be required for items having specific limitations set forth in the contract.

**3. Sample Voucher Information**

This voucher represents reimbursable costs for the billing period  
from \_\_\_\_through\_\_\_\_.

Amount Billed  
Current PeriodCumulative

(a) Direct Costs

- (1) Direct labor\*.....
- (2) Fringe benefits (     %, if computed as percentage).....
- (3) Capitalized non-expendable equipment (\$50,000 or more - see I  
instructions)\*.....
- (4) Non-capitalized equipment, materials, and supplies.....
- (5) Premium pay (NRC approved overtime).....
- (6) Consultants\*.....
- (7) Travel\*.....
- (8) Subcontracts\*.....
- (9) Other costs\*.....

Total Direct Costs

(SAMPLE FORMAT)

**COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)**  
**INVOICE/ VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL**

(b) Indirect Costs

(A) Overhead \_\_\_\_ % of  
\_\_\_\_\_ (Indicate Base).....

(c) Fixed-Fee (Cite Formula):

(d) Total Amount Billed.....

(e) Adjustments.....

(f) Grand Totals.....

\* (Requires Supporting Information -- See Sample below)

**SAMPLE SUPPORTING INFORMATION**

1) Direct Labor - \$2400

Labor Category	Hours Billed	Rate	Cumulative Total	Hrs. Billed
Senior Engineer I	100	\$14.00	\$1400	975
Engineer	50	\$10.00	\$ 500	465
Computer Analyst	100	\$ 5.00	<u>\$ 500</u>	320
			<u>\$2400</u>	

3) Capitalized Non-Expendable Equipment

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

4) Non-capitalized Equipment, Materials, and Supplies

10 Radon tubes @ \$110.00 = \$1100.00

6 Pairs Electrostatic gloves @ \$150.00 = \$900.00  
\$2000.00

5) Premium Pay

Walter Murphy - 10 hours @ \$10.00 Per Hour = \$100  
(This was approved by NRC in letter dated 6/1/08)

6) Consultants' Fee

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

(SAMPLE FORMAT)

COST REIMBURSEMENT TYPE CONTRACTS (JUNE 2008)  
INVOICE/ VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

7)	<u>Travel</u>		
	<u>Start Date</u>	<u>Destination</u>	<u>Costs</u>
	6/1/08	Wash., DC	\$200

**4. FEE RECOVERY BILLING REPORT**

FIN:

Facility Name or Report Title:

TAC or Inspection Report Number:  
(or other unique identifier)

Docket Number (if applicable):

Cost Categories	Period Amt.	Period Cost Incurred	Fiscal Year To Date Costs	Total Cumulative Costs
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Labor

Materials

Subcontractor/  
Consultant

Travel

Other (specify)

Common Costs

Total

Remarks:

## CONTRACTOR SPENDING PLAN - INSTRUCTIONS

The Contractor Spending Plan (CSP) is an important tool for projecting and tracking contract costs and progress each task under the contract.

### Applicability

The Nuclear Regulatory Commission (NRC) requires that the CSP be completed for cost reimbursement contracts when the award amount is expected to exceed \$100,000 and the period of performance is expected to exceed 6 months. For task order type contracts, a CSP is required when an individual cost reimbursement task order is expected to exceed the above thresholds. When contract or task order modification increases the contract or task order amount of a cost reimbursement contract or task order to over \$100,000 and the period of performance from the effective date of the modification to the contract or task order expiration exceeds 6 months, a CSP is required for all contract work to be performed after the effective date of the modification.

### Submission

1. A CSP is required:
  - 1.a as part of the cost proposal for a cost reimbursement contract or individual task order, or modification to a contract or task order which meets the above thresholds;
  - 1.b as part of the Best and Final Offer (if requested) as a result of negotiations;
2. Updated CSP information is required on a monthly basis or as approved by the CO as part of the "Financial Status Report" (Ref: Section F.(fillin) , "Financial Status Report").

### Format

The attached CSP sample format may be duplicated and used by the Contractor, or modified to permit more accurate reporting or to meet other needs of the contractor. For instance, the sample format provides spaces to report projected costs for 12 months, but the contractor may wish to alter the sample format for shorter or longer contract/task order periods. The contractor may also wish to alter the sample format for ease of typing or automated production. So long as complete information is provided on actual and projected costs or accomplishments, changes to the format to improve relevance to the circumstances are encouraged.

It is up to the discretion of the offeror to determine the appropriate level of cost detail to be presented based on the complexity of the effort. This plan reflects only the minimum requirements for submission of cost details which will be considered for completeness, reasonableness, and as a measure of effective management of the effort. The Contracting Officer reserves the right to request additional cost information, if deemed necessary.

