

<b>AWARD/CONTRACT</b>		1 THIS CONTRACT IS RATED ORDER UNDER DPAS (15 CFR 350)	RATING N/A	PAGE OF PAGES 1 31
2 CONTRACT NO (Proc. Inst Ident.) NRC-04-02-055		3 EFFECTIVE DATE <b>SEP 13 2002</b>	4 REQUISITION/PURCHASE REQUEST/PROJECT NO RES-02-055	
5 ISSUED BY U.S. Nuclear Regulatory Commission Division of Contracts, CMC 2 Two White Flint North - MS T-7-I-2 Washington, DC 20555		6 ADMINISTERED BY (If other than Item 5) U.S. Nuclear Regulatory Commission Division of Contracts Two White Flint North - MS T-7-I-2 Washington, DC 20555		

7 NAME AND ADDRESS OF CONTRACTOR (No., street, city county, State and ZIP Code)  Colorado State University ATTN: Carmen Morales, Sr. Research Adm. Sponsored Programs Fort Collins, CO 80523		8 DELIVERY <input type="checkbox"/> FOB ORIGIN <input checked="" type="checkbox"/> OTHER (See below)
CODE		9 DISCOUNT FOR PROMPT PAYMENT  N/A
FACILITY CODE		10 SUBMIT INVOICES (4 copies unless otherwise specified) ITEM TO THE ADDRESS SHOWN IN

11 SHIP TO/MARK FOR CODE U.S. Nuclear Regulatory Commission  Washington DC 20555		12 PAYMENT WILL BE MADE BY CODE U.S. Nuclear Regulatory Commission Payment Team, Mail Stop T-9-H-4 Attn: NRC-04-02-055  Washington DC 20555
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13 AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION <input type="checkbox"/> 10 U.S.C. 2304(c)(1) <input type="checkbox"/> 41 U.S.C. 253(c)(1)		14 ACCOUNTING AND APPROPRIATION DATA 31X0200.260 252A 26015110207 Y6433 Obligated Amount: \$145,000
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15A ITEM NO.	15B SUPPLIES/SERVICES	15C QUANTITY	15D UNIT	15E UNIT PRICE	15F AMOUNT
	(SEE SECTION B FOR SCHEDULE OF SUPPLIES/SERVICES) PROJECT TITLE: "TECHNICAL ASSISTANCE TO REVISE THE VARSKIN MOD 2 COMPUTER CODE USED TO DETERMINE SKIN DOSE" PERIOD OF PERFORMANCE: TWENTY (20) MONTHS  (NOTE: THIS CONTRACT AWARD INCORPORATES CSU'S TECHNICAL PROPOSAL DATED 7/16/02 AND COST PROPOSAL DATED 7/25/02)				
15G TOTAL AMOUNT OF CONTRACT					\$184,310.00

(X)	SEC	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
X	A	SOLICITATION/CONTRACT FORM		X	I	CONTRACT CLAUSES	
X	B	SUPPLIES OR SERVICES AND PRICES/COSTS		PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH			
X	C	DESCRIPTION/SPECS./WORK STATEMENT		X	J	LIST OF ATTACHMENTS	
X	D	PACKAGING AND MARKING		PART IV - REPRESENTATIONS AND INSTRUCTIONS			
X	E	INSPECTION AND ACCEPTANCE			K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
X	F	DELIVERIES OR PERFORMANCE			L	INSTRS., CONDS., AND NOTICES TO OFFER	
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X	H	SPECIAL CONTRACT REQUIREMENTS					

**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 2 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 RS-RES-02-055, 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)  Mary Mace, Contracting Officer		20A NAME OF CONTRACTING OFFICER  Mary Mace, Contracting Officer	
19B NAME OF CONTRACTOR  Colorado State University		20B UNITED STATES OF AMERICA BY Robert Webster (Signature of Contracting Officer)	
19C DATE SIGNED 9/13/02		20C DATE SIGNED 8/21/02	

TEMPLATE-ADM001

ADM02

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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:

"Technical Assistance to Revise the VARSKIN MOD 2 Computer Code Used to Determine Skin Dose."

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

The objective of this project is to provide: (1) an upgrade of the VARSKIN MOD 2 code, (2) identification and correction of the existing errors, (3) verification of the code, (4) documentation of the developed code, and (5) support and code maintenance.

**B.3 CONSIDERATION AND OBLIGATION--COST REIMBURSEMENT  
(JUN 1988) ALTERNATE I (JUN 1988)**

(a) The total estimated cost to the Government for full performance under this contract is \$184,310.

(b) The amount presently obligated by the Government with respect to this contract is \$145,000.

(c) It is estimated that the amount currently allotted will cover performance through 8/31/2003.

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

### STATEMENT OF WORK

#### 1.0 BACKGROUND

To ensure compliance with the U.S. Nuclear Regulatory Commission (NRC) regulations (10 CFR PART 20), NRC licensees must have in place an approved radiation protection program. This program must include established protocols for performing skin dose calculations and the associated documentation.

In order to facilitate calculation of the dose to the skin the NRC funded the development of the VARSKIN computer code in the late 1980's to perform calculations of a dose to bare skin from point and infinitely-thin-disk sources. This code was also used to determine doses from "hot particles," when on bare skin and on protective clothing. Users of the code identified a few shortcomings resulting in overestimation of the dose to the skin. The NRC funded an upgrade of the code, called VARSKIN Mod 2, to correct such shortcomings. Also, included with this upgrade was an upgraded version of the Scaled Absorbed Dose Distribution Evaluator (SADDE), which allowed the user to develop scaled absorbed dose distributions for mixtures of up to 30 radionuclides. The VARSKIN Mod 2 upgrade was released in 1992, allowing more accurate calculation of the dose to the skin from hot particles, by eliminating known problems, accounting for self-shielding, modeling for clothing, and adding gamma dose modeling. The VARSKIN Mod 2 code has been used at more than 300 sites throughout the world and became widely accepted in the reactor community. During such use by these multiple users some errors and limitations were identified.

An upgrade of the code is needed to provide accurate assessment of the skin dose and eliminate the errors and limitations that could lead to seriously incorrect dose estimations under certain conditions. Also, the code should be windows-based. Currently it runs on a DOS operating platform and DOS is being eliminated as a Microsoft option.

#### 2.0 OBJECTIVE

The objective of this project is to provide: (1) an upgrade of the VARSKIN Mod 2 code, (2) identification and correction of the existing errors, (3) verification of the code, (4) documentation of the developed code, and (5) support and code maintenance.

The revised code will continue to be used by the NRC staff to confirm skin calculations made by licensees for demonstrating compliance with regulations. The improved code will also be useful to other entities involved with radiation protection. The upgrade will include accurate assessment of the skin dose from beta and gamma emitters that come into contact or close proximity to the skin and an extensive list of radionuclides with a windows interface capability. Also, it will provide flexibility by allowing the user to investigate the effects on the resulting dose of varying the exposure parameters.

#### 3.0 SCOPE OF WORK

This Statement of Work describes a two phase approach. The first phase shall include interfacing of the VARSKIN Mod 2 code with a windows environment, identifying and correcting errors and limitations, adding new parameters, performing Beta testing, and providing a user manual. The second phase entails providing support and code maintenance to insure that the revised code is working properly. The performing organization shall develop specific plans for the code upgrade which shall be approved by the Project Manager in advance. Specifically, the upgrade shall address the following Tasks as a minimum:

##### A. FIRST PHASE

###### Task 1: Upgrade the VARSKIN Mod 2 code

- o Convert the VARSKIN code to a windows environment (capable of working with NT and other recent PC Windows operating systems).
- o The related code SADDE shall be joined with VARSKIN to permit automatic access within the windows environment.

- o Correct the errors/limitations identified by licensees, the NRC staff, and other organizations that could lead to incorrect dose estimations.
- o Eliminate the approximations and limitations that were allowed in the current version only to permit calculations to be performed in a reasonable amount of time. This is no longer necessary.
- o Update the VARSKIN Mod 2 library to have a more extensive list of radionuclides, and the ability to add new radionuclides and their properties (e.g., type of radiation, effective half-life with default to physical half-life, and energy) simply by entering the name of the radionuclide.
- o Use of additional parameters shall be more flexible. For example, varying any input parameter, such as energy of the beta radiation, shall not require rerunning of the code. This would permit online sensitivity analysis.
- o The list of radionuclides shall include two categories of irradiated fuel: (1) old fuel (more than 3 months), and (2) new fuel (less than a few days), because the energy spectra are significantly different.
- o The code shall be able to average the dose calculated over any specified area, at any depth, for example, 1 cm<sup>2</sup> for eye dose limit, or 10 cm<sup>2</sup> for the proposed skin dose limit, in anticipation of implementation of applicable NCRP recommendations. The code should also be able to calculate the dose to a selected thickness of tissue.
- o A new geometry shall be added (e.g., a cylinder of finite dimensions) to the list of available geometries to allow calculations of skin for personnel handling medical isotopes.
- o The code shall address source geometries such as discrete radioactive particles on or off the skin, large area (> 1 cm<sup>2</sup>) uniform skin contaminations, and small area contamination (< 1cm<sup>2</sup>).
- o Source geometry factors that affect skin dose should be addressed in the code to the extent that they can be addressed. For example, self-absorption.
- o Improve the gamma dose model.
- o Perform validation and verification of the code. For example, necessary corrections to the parameters and equations shall be made to insure the correct determination of the dose to the skin.
- o Perform Beta testing of the code before it is formally transmitted to the NRC Project Manager for general distribution. Provide copies of the comments and their resolution to the NRC Project Manager.
- o Provide a half day hands-on training exercise of the developed code for relevant NRC staff.
- o Incorporate comments from the NRC staff after they have the opportunity to run the code and comment on its effectiveness.

Completion date: Twelve months after the contract has been awarded.

### Task 2: Documentation (Develop Draft NUREG/CR)

The existing documentation of the code (User Manual) shall be expanded to facilitate its use. The current documentation is sketchy (e.g., the Table of shielding thickness and densities in the documentation is limited). The level of detail for technical justifications shall be such that a user can understand the sources consulted, the method the performing organization used to evaluate the information, and the conditions under which the results are applicable. The documentation shall focus on the use of the new code with a brief statement as to how it differs from the old code. Specifically, the documentation shall include:

- o Introduction - purpose, and scope.
- o General description of the database.
- o Instructions for accessing and importing input data, processing the input data, and storing the input data.
- o Instructions for interpretation of the output parameters - screen format, report layout, and content.
- o Default method for computing skin doses.
- o Interface instructions - access by licensees, the NRC staff, and the public.
- o A programmer's manual of sufficient detail to enable an external organization to modify the code.
- o Design requirements - comply with: (1) NRC requirements, (2) Federal government standards, and (3) hardware limitations.

Completion date: One month after completion of Task 1.

## B. SECOND PHASE

### Task 3: User Support and Code Maintenance

The performing organization shall provide support and maintenance for the use of the code. It shall resolve limitations which are recognized by the users after code distribution. Specifically, the performing organization shall address the following:

- o Provide limited assistance to NRC-specified users by responding to their queries regarding the use of the code or its installation on computers.
- o Obtain approval from the NRC Project Manager for assistance to resolve comments from users that would require major code or modeling revisions.
- o Provide support to the international code users as requested by the NRC Project Manager.
- o Maintain a log of all comments received on the VARSKIN Mod 2 code from users and provide copies of the comments and their resolutions to the NRC Project Manager.
- o Provide formal maintenance/update procedures to update the VARSKIN Mod 2 code for incorporation of minor corrections prompted by users' comments.

- o Revise the documentation (Final NUREG/CR) to reflect changes made to the code after correction of errors.

Completion date: Twenty months after the contract has been awarded.

#### 4.0 REQUIRED EXPERTISE

The performing organization shall identify all key personnel and explain the rationale as to why each individual is uniquely qualified to be designated as key to this work. Key personnel assigned to this work are subject to approval by the NRC Project Manager. In particular, the principal investigator must have the following: (1) be familiar with the extensive history and problems encountered by the users and were identified by the government since it was released, (2) be instrumental in knowing how and where to correct the current problems that exist in the code, (3) have knowledge of how the code works and how it interfaces with a Windows environment, (4) have knowledge of how to add and expand databases and the library of radionuclides, and (5) provide continuous oversight and involvement with the product. The principal investigator is expected to spend 60 percent of the technical time devoted to the contract.

#### 5.0 MEETINGS AND TRAVEL

Upon award of the contract, an initial meeting will be held at NRC with the contractor to discuss the work to be provided under the contract. The principal investigator shall meet with the NRC cognizant staff after completion of each task and provide the technical progress of such tasks. A maximum of two additional related contract meetings may be coordinated by the NRC Project Manager. The contractor's principal investigator shall participate in the inception meeting (approximately 1 day). The meeting(s) will be scheduled as directed by the NRC Project Manager. One individual shall be traveling for each meeting for a period of one day. An exception may be a meeting at headquarters to demonstrate the code. All travel above by the contractor shall be approved first by the NRC project manager.

#### 6.0 NRC FURNISHED MATERIALS AND EQUIPMENT

The following materials will be furnished to the contractor by the NRC: Comments submitted to NRC on the use of the VARSKIN Mod 2 code.

All capital equipment expenditures, including the purchase of computers charged to this project require the prior written approval of the NRC Contracting Officer.

#### 7.0 DISPOSAL OF PROPERTIES

At the conclusion of the contract, the contractor shall discuss and determine, with the approval of the NRC Contracting Officer, the ultimate disposition of materials purchased and developed during the course of the contract. A letter from the contractor shall itemize and discuss the contractor's plans for transfer, retention, and disposal of all equipment, information, software, and technical reports.

**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.

NUMBER	TITLE	DATE
	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)	
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
52.247-48	F.O.B. DESTINATION--EVIDENCE OF SHIPMENT	FEB 1999

### 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 3.8, "Unclassified Contractor and Grantee Publications in the NUREG Series." Management Directive 3.8 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 DELIVERABLES/REPORTING REQUIREMENTS

1. The contractor, one week prior to initiating work, shall describe, in writing, an applicable quality assurance program. Specifically, any work (i.e., data, interpretations, models, computations, methods, etc.) developed under the contract shall be performed under an adequate quality assurance program to ensure the technical accuracy and quality of the documents produced. Quality assurance comprises all those planned and systematic actions necessary to provide adequate confidence that the assessments have been satisfactorily performed. Quality assurance shall include verification for completeness, accuracy, consistency, and sufficient documentation to assure the reproducibility of the results of all calculations of the dose to the skin.
2. The contractor shall submit a quarterly technical status report in accordance with F.3 that includes all of the relevant information pertaining to each task and its status, calculations performed for the modification of the code, exposure scenarios, and related dose modeling. In addition, the contractor shall provide a monthly financial status report in accordance with Section F.4 to include the financial information and spending plan for each Task.
3. The contractor shall develop an upgraded software application of VARSKIN Mod 2 code where current problems have been corrected and that has expanded capabilities. The upgrade shall be Windows-based. Deliverables shall be submitted on IBM PC compatible electronic media. All media shall be capable of use on an IBM PC or compatible microcomputer using NRC supported software. The developed program shall be written with software available to the NRC. In particular, documents (e.g., reports) shall be provided in IBM Revisable-Form Text Document Content Architecture format or 7-bit ASCII code if formatted text cannot be provided. This will allow document text to be used both on NRC microcomputers and word processing equipment.
4. The contractor shall provide a presentation to the NRC staff and if applicable a computer demonstration after completion of each Task and before the new Task is initiated. All deliverables shall be accompanied by documentation, including a printed copy of the directory, a description of each file in the directory and how it is to be used and installation instructions. Distribution of the software and documentation will be performed under NRC's guidance.
5. A NUREG/CR shall accompany the upgrade to describe the application program and to provide an instruction manual for its use. The contractor shall also provide documentation on the code itself, as well as Beta testing results.

## F.6 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 (2 copies)

U.S. Nuclear Regulatory Commission  
ATTN: Harriet Karagiannis  
Office of Nuclear Regulatory Research  
Division of Risk Analysis and Application  
11545 Rockville Pike, M/S: T-9F31  
Rockville, MD 20555

(b) Contracting Officer (1 copy)

U.S. Nuclear Regulatory Commission  
ATTN: Mary Mace  
Office of Administration  
Division of Contracts  
11545 Rockville Pike, M/S: T-7-I-2  
Rockville, MD 20555

**F.7 DURATION OF CONTRACT PERIOD (MAR 1987)**

This contract shall commence on the effective date of the contract and will expire on April 30, 2004.

**SECTION G - CONTRACT ADMINISTRATION DATA****G.1 2052.215-71 PROJECT OFFICER AUTHORITY**

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

Name: Harriet Karagiannis

Address: U.S. Nuclear Regulatory Commission  
Office of Nuclear Regulatory Research  
RES/DSARE/RPERWMB  
11545 Rockville Pike, M/S: T-7-I-2  
Rockville, MD 20555

Telephone Number: (301) 415-6377

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

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

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

(3) Review and, where required by the contract, 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 Personnel Security Branch, Division of Facilities and Security (PERSEC/DFS) (via e-mail) when a contractor employee no longer requires access authorization and return the individual's badge to PERSEC/DFS within three days after their termination.

## **G.2 2052.215-77 TRAVEL APPROVALS AND REIMBURSEMENT (OCT 1999)**

(a) 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 before beginning travel.

(b) The contractor must receive written approval from the NRC Project Officer before taking travel that was unanticipated in the Schedule (i.e., travel not contemplated in the Statement of Work, or changes to specific travel identified in the Statement of Work).

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

(d) It is the responsibility of the contractor to notify the contracting officer in accordance with the Limitations of Cost clause of this contract when, at any time, the contractor learns that travel expenses will cause the contractor to exceed the estimated costs specified in the Schedule.

(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
Fringe	[REDACTED]	Academic Faculty/Professional
Overhead	[REDACTED]	Academic Faculty (Organized Research)
Fringe	[REDACTED]	Graduate Research Assistant
Overhead	[REDACTED]	Graduate Research Assistant (Organized Research)

(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.

**G.4 ELECTRONIC PAYMENT**

The Debt Collection Improvement Act of 1996 requires that all payments except IRS tax refunds be made by Electronic Funds Transfer. It is the policy of the Nuclear Regulatory Commission to pay vendors by the Automated Clearing House (ACH) electronic funds transfer payment system. The electronic system is known as Vendor Express. Payment shall be made in accordance with FAR 52.232-33, entitled "Mandatory Information for Electronic Funds Transfer Payment".

To receive payment, the contractor shall complete the "Company Information" portion of the Standard Form 3881, entitled "ACH Vendor/Miscellaneous Payment Enrollment Form" found as an attachment to this document. The contractor shall take the form to the ACH Coordinator at the financial institution that maintains its company's bank account. The contractor shall discuss with the ACH Coordinator how the payment identification information (addendum record) will be passed to them once the payment is received by the financial institution. Further information concerning the addendum is provided at Attachment 3. The ACN Coordinator should fill out the "Financial Institution Information" portion of the form and return it to the Office of the Controller at the following address: Nuclear Regulatory Commission, Division of Accounting and Finance, Financial Operations Section, Mail Stop T-9-H-4, Washington, DC 20555, ATTN: ACH/Vendor Express. It is the responsibility of the contractor to ensure that the financial institution returns the completed form to the above cited NRC address. If the contractor can provide the financial information, signature of the financial institutions ACH Coordinator is not required. The NRC is under no obligation to send reminders. Only after the Office of the Controller has processed the contractor's sign-up form will the contractor be eligible to receive payments.

Once electronic funds transfer is established for payments authorized by NRC, the contractor needs to submit an additional SF 3881 only to report changes to the information supplied.

Questions concerning ACH/Vendor Express should be directed to the Financial Operations staff at (301) 415-7520."

**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:

[REDACTED]

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

(b) If one or more of the key personnel, for whatever reason, becomes, or is expected to become, unavailable for work under this contract for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the contractor shall immediately notify the contracting officer and shall, subject to the concurrence of the contracting officer, promptly replace the personnel with personnel of at least substantially equal ability and qualifications.

(c) Each request for approval of substitutions must be in writing and contain a detailed explanation of the circumstances necessitating the proposed substitutions. The request must also contain a complete resume for the proposed substitute and other information requested or needed by the contracting officer to evaluate the proposed substitution. The contracting officer and the project officer shall evaluate the contractor's request and the contracting officer shall promptly notify the contractor of his or her decision in writing.

(d) If the contracting officer determines that suitable and timely replacement of key personnel who have been reassigned, terminated, or have otherwise become unavailable for the contract work is not reasonably forthcoming, or that the resultant reduction of productive effort would be so substantial as to impair the successful completion of the contract or the service order, the contract may be terminated by the contracting officer for default or for the convenience of the Government, as appropriate. If the contracting officer finds the contractor at fault for the condition, the contract price or fixed fee may be equitably adjusted downward to compensate the Government for any resultant delay, loss, or damage.

## **H.3 2052.242-70 RESOLVING NRC CONTRACTOR DIFFERING PROFESSIONAL VIEWS (DPVS) (OCT 1999)**

(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 Views (DPVs).

(b) The procedure that will be used provides for the expression and resolution of differing professional views (DPVs) 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 may be found in Attachments to this document. The contractor shall provide a copy of the NRC DPV 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 DPV's received but need not endorse them.

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

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

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

(c) Before incurring costs to document a DPV, the contractor shall first determine whether there are sufficient funds obligated under the contract which are available to cover the costs of writing a DPV. If there are insufficient obligated funds under the contract, the contractor shall first request the NRC contracting officer for additional funding to cover the costs of preparing the DPV and authorization to proceed.

(d) Contract funds shall not be authorized to document an allegation where the use of this NRC contractor DPV process is inappropriate. Examples of such instances are: allegations of wrongdoing which should be addressed directly to the NRC Office of the Inspector General (OIG), issues submitted anonymously, or issues raised which have already been considered, addressed, or rejected, absent significant new information. This procedure does not provide anonymity. Individuals desiring anonymity should contact the NRC OIG or submit the information under NRC's Allegation Program, as appropriate.

(e) When required, the contractor shall initiate the DPV process by submitting a written statement directly to the NRC Office Director or Regional Administrator responsible for the contract, with a copy to the Contracting Officer, Division of Contracts and Property Management, Office of Administration. Each DPV submitted will be evaluated on its own merits.

(f) The DPV, 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 based on risk, safety and cost benefit considerations of the consequences should the submitter's position not be adopted by NRC.

(g) The Office Director or Regional Administrator will immediately forward the submittal to the NRC DPV Review Panel and acknowledge receipt of the DPV, ordinarily within five (5) calendar days of receipt.

(h) The panel will normally review the DPV within seven calendar days of receipt to determine whether enough information has been supplied to undertake a detailed review of the issue. Typically, within 30 calendar days of receipt of the necessary information to begin a 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.

(i) The Office Director or Regional Administrator will consider the DPV Review Panel's report, make a decision on the DPV and provide a written decision to the contractor and the Contracting Officer normally within seven calendar days after receipt of the panel's recommendation.

(j) Subsequent to the decision made regarding the DPV Review Panel's report, a summary of the issue and its disposition will be included in the NRC Weekly Information Report submitted by the Office Director. The DPV file will be retained in the Office or Region for a minimum of one year thereafter. For purposes of the contract, the DPV shall be considered a deliverable under the contract. Based upon the Office Director or Regional Administrator's report, the matter will be closed.

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

The Government will provide comments submitted to NRC on the use of the VARSKIN Mod 2 code.

#### **H.6 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.

## 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	DEC 2001
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	JUL 1995
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	JUN 1997
52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER	AUG 2000
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	JUL 1995
52.215-2	AUDIT AND RECORDS--NEGOTIATION ALTERNATE II (APR 1998)	JUN 1999
52.215-8	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT	OCT 1997
52.215-14	INTEGRITY OF UNIT PRICES	OCT 1997
52.216-11	COST CONTRACT--NO FEE	APR 1984
52.219-4	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)	JAN 1999
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	OCT 2000
52.222-3	CONVICT LABOR	AUG 1996
52.222-19	CHILD LABOR - COOPERATION WITH AUTHORITIES AND REMEDIES	DEC 2001
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB 1999
52.222-26	EQUAL OPPORTUNITY	APR 2002
52.222-35	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	DEC 2001
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,	DEC 2001

52.222-38	AND OTHER ELIGIBLE VETERANS COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS	DEC 2001
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.223-14	TOXIC CHEMICAL RELEASE REPORTING	OCT 2000
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUL 2000
52.227-1	AUTHORIZATION AND CONSENT	JUL 1995
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	AUG 1996
52.227-14	RIGHTS IN DATA--GENERAL	JUN 1987
52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS	MAR 1996
52.232-17	INTEREST	JUN 1996
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	JAN 1986
52.232-33	PAYMENT BY ELECTRONIC FUNDS--CENTRAL CONTRACTOR REGISTRATION	MAY 1999
52.233-1	DISPUTES	DEC 1998
52.233-3	PROTEST AFTER AWARD ALTERNATE I (JUN 1985)	AUG 1996
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-13	BANKRUPTCY	JUL 1995
52.243-2	CHANGES--COST REIMBURSEMENT ALTERNATE I (APR 1984)	AUG 1987
52.244-2	SUBCONTRACTS ALTERNATE II (AUG 1998)	AUG 1998
52.244-5	COMPETITION IN SUBCONTRACTING	DEC 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	MAY 2002
52.246-23	LIMITATION OF LIABILITY	FEB 1997
52.246-25	LIMITATION OF LIABILITY--SERVICES	FEB 1997
52.249-6	TERMINATION (COST-REIMBURSEMENT)	SEP 1996
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

## I.2 52.216-7 ALLOWABLE COST AND PAYMENT (FEB 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 31.2 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 will be made-

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

(2) Ordinarily prior to the submission of the Contractor's next 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) below, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) below.

(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 52.227-23 RIGHTS TO PROPOSAL DATA (TECHNICAL) (JUN 1987)**

It is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data--General" clause contained in this contract) in and to the technical data contained in the proposal dated 7/16/02 upon which this contract is based.

### **I.4 52.232-25 PROMPT PAYMENT (FEB 2002)**

Notwithstanding any other payment clause in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer (EFT). Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(4) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

#### **(a) Invoice payments--**

##### **(1) Due date.**

(i) Except as indicated in paragraphs (a)(2) and (c) of this clause, the due date for making invoice payments by the designated payment office is the later of the following two events:

(A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(ii) of this clause).

(B) The 30th day after Government acceptance of supplies delivered or services performed. For a final invoice, when the payment amount is subject to contract settlement actions, acceptance is deemed to occur on the effective date of the contract settlement.

(ii) If the designated billing office fails to annotate the invoice with the actual date of receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

##### **(2) Certain food products and other payments.**

(i) Due dates on Contractor invoices for meat, meat food products, or fish; perishable agricultural commodities; and dairy products, edible fats or oils, and food products prepared from edible fats or oils are--

(A) For meat or meat food products, as defined in section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)), and as further defined in Pub. L. 98-181, including any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, as close as possible to, but not later than, the 7th day after product delivery.

(B) For fresh or frozen fish, as defined in section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), as close as possible to, but not later than, the 7th day after product delivery.

(C) For perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(4)), as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.

(D) For dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C.

4502(e)), edible fats or oils, and food products prepared from edible fats or oils, as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received. Liquid milk, cheese, certain processed cheese products, butter, yogurt, ice cream, mayonnaise, salad dressings, and other similar products, fall within this classification. Nothing in the Act limits this classification to refrigerated products. When questions arise regarding the proper classification of a specific product, prevailing industry practices will be followed in specifying a contract payment due date. The burden of proof that a classification of a specific product is, in fact, prevailing industry practice is upon the Contractor making the representation.

(ii) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.

(3) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(3)(i) through (a)(3)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils), with the reasons why it is not a proper invoice. The Government will take into account untimely notification when computing any interest penalty owed the Contractor.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of the mailing or transmission.)

(iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).

(iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.

(v) Shipping and payment terms (e.g., shipment number and date of shipment, discount for prompt payment terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(ix) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(x) Any other information or documentation required by the contract (e.g., evidence of shipment).

(4) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(4)(i) through (a)(4)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment, and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.

(iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(5) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance is deemed to occur constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivers the supplies or performs the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. If actual acceptance occurs within the constructive acceptance period, the Government will base the determination of an interest penalty on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(6) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(7) Additional interest penalty.

(i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(7)(ii) of this clause, postmarked not later than 40 days after the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest is due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments

under utility contracts subject to tariffs and regulation).

(b) Contract financing payment. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Fast payment procedure due dates. If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.

(d) Overpayments. If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

#### **I.5 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):

[www.ARNET.gov/FAR/](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	Billing Instructions - Cost Reimbursement Type Contract		
2	NRC Handbook 3.8		
3	Payment Information Form SF 3381		