

AWARD/CONTRACT		1. THIS CONTRACT IS RATED ORDER UNDER DPAS (15 CFR 350)	RATING N/A	PAGE OF PAGES 1 35			
2. CONTRACT NO. (Proc. Inat. Ident.) NRC-04-00-050		3. EFFECTIVE DATE 09-01-2000	4. REQUISITION/PURCHASE REQUEST/PROJECT NO. dated 06/01/00 RPPA RES-00-050				
5. ISSUED BY U.S. Nuclear Regulatory Commission Division of Contracts and Property Mgt. Attn: T-7-I-2 Contract Management Branch Washington DC 20555		6. ADMINISTERED BY (If other than Item 5) CODE					
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, State and ZIP Code) The National Academy of Sciences 2101 Constitution Avenue, N.W. Washington, D.C. 20418		8. DELIVERY <input type="checkbox"/> FOB ORIGIN <input checked="" type="checkbox"/> OTHER (See below)					
		9. DISCOUNT FOR PROMPT PAYMENT N/A					
		10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN: ITEM					
11. SHIP TO/MARK FOR CODE FACILITY CODE		12. PAYMENT WILL BE MADE BY U.S. Nuclear Regulatory Commission Office of the Chief Financial Officer Attn: GOV/COM Actng. Section T-9H4 Washington DC 20555					
13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)(1) <input checked="" type="checkbox"/> 41 U.S.C. 253(c)(1)		14. ACCOUNTING AND APPROPRIATION DATA B&R No. 06015205110; Job Code Y6287; BOC 252A; Appropriation No. 31X0200.060; Obligate #725,000.00					
15A. ITEM NO.	15B. SUPPLIES/SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE			
	Study on Alternatives for Controlling the Release of Solid Materials from Nuclear Regulatory Commission-Licensed Facilities						
				15F. AMOUNT			
				\$875,000.00			
15G. TOTAL AMOUNT CONTRACT							
16. TABLE OF CONTENTS See Attached Table of Contents							
DO	SEC.	DESCRIPTION	PAGE(S)	DO	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
	A	SOLICITATION/CONTRACT FORM			I	CONTRACT CLAUSES	
	B	SUPPLIES OR SERVICES AND PRICES/COSTS		PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
	C	DESCRIPTION/SPECS./WORK STATEMENT			J	LIST OF ATTACHMENTS	
	D	PACKAGING AND MARKING		PART IV - REPRESENTATIONS AND INSTRUCTIONS			
	E	INSPECTION AND ACCEPTANCE			K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
	F	DELIVERIES OR PERFORMANCE			L	INSTRS., CONDS., AND NOTICES TO OFFER	
	G	CONTRACT ADMINISTRATION DATA			M	EVALUATION FACTORS FOR AWARD	
	H	SPECIAL CONTRACT REQUIREMENTS					
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.) DAVID P. WESTBROOK		18. <input type="checkbox"/> AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number RS-RES-00-050 , 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) Associate Director Office of Contracts and Grants		20A. NAME OF CONTRACTING OFFICER Joyce A. Fields					
19B. NAME OF CONTRACTOR BY 12d w/g (Signature of person authorized to sign)		20B. UNITED STATES OF AMERICA BY Joyce A. Fields (Signature of Contracting Officer)					
19C. DATE SIGNED 8/31/00		20C. DATE SIGNED 8/31/2000					

Template = ADM-001

ADM02

TABLE OF CONTENTS

PAGE

PART I - THE SCHEDULE. A-1

SECTION A - SOLICITATION/CONTRACT FORM A-1
 SF 26 AWARD/CONTRACT A-1

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS B-1
 B.1 PROJECT TITLE B-1
 B.2 BRIEF DESCRIPTION OF WORK (MAR 1987). B-1
 B.3 CONSIDERATION AND OBLIGATION--COST REIMBURSEMENT. B-1
 (JUN 1988) ALTERNATE I (JUN 1988)

SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK C-1
 C.1 STATEMENT OF WORK C-1

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

SECTION E - INSPECTION AND ACCEPTANCE. E-1
 E.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE E-1
 E.2 PLACE OF INSPECTION AND ACCEPTANCE (MAR 1987) E-1

SECTION F - DELIVERIES OR PERFORMANCE. F-1
 F.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE F-1
 F.2 2052.211-70 PREPARATION OF TECHNICAL REPORTS (JAN 1993). F-1
 F.3 2052.211-71 TECHNICAL PROGRESS REPORT (JAN 1993) F-1
 F.4 2052.211-72 FINANCIAL STATUS REPORT (OCT 1999) F-2
 F.5 PLACE OF DELIVERY--REPORTS (JUN 1988) F-3
 F.6 DURATION OF CONTRACT PERIOD (MAR 1987). F-3

SECTION G - CONTRACT ADMINISTRATION DATA G-1
 G.1 2052.215-71 PROJECT OFFICER AUTHORITY (OCT 1999) G-1
 G.2 2052.215-77 TRAVEL APPROVALS AND REIMBURSEMENT (OCT 1999). G-3
 G.3 2052.216-71 INDIRECT COST RATES (JAN 1993) G-3
 G.4 ELECTRONIC PAYMENT. G-4

SECTION H - SPECIAL CONTRACT REQUIREMENTS. H-1
 H.1 2052.209-72 CONTRACTOR ORGANIZATIONAL CONFLICTS OF H-1
 INTEREST (JAN 1993)
 H.2 2052.215-70 KEY PERSONNEL (JAN 1993) H-4
 H.3 2052.242-70 RESOLVING NRC CONTRACTOR DIFFERING PROFESSIONAL. H-5
 (DPVS) (OCT 1999)
 H.4 2052.242-71 PROCEDURES FOR RESOLVING NRC CONTRACTOR. H-6
 DIFFERING PROFESSIONAL VIEWS (DPVS) (OCT 1999)
 H.5 GOVERNMENT FURNISHED EQUIPMENT/PROPERTY - NONE PROVIDED H-7
 (JUN 1988)
 H.6 SEAT BELTS. H-7

PART II - CONTRACT CLAUSES. I-1

SECTION I - CONTRACT CLAUSES I-1
 I.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE I-1
 I.2 52.215-21 REQUIREMENTS FOR COST OR PRICING DATA. I-2

TABLE OF CONTENTS

PAGE

OR INFORMATION OTHER THAN COST OR PRICING DATA--
MODIFICATIONS (OCT 1997)

I.3	52.216-7	ALLOWABLE COST AND PAYMENT (MAR 2000)	I-4
I.4	52.252-2	CLAUSES INCORPORATED BY REFERENCE (FEB 1998)	I-7

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS J-1

SECTION J - LIST OF ATTACHMENTS. J-1

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

The title of this project is as follows:

Alternatives for Controlling the Release of Solid Materials

B.2 BRIEF DESCRIPTION OF WORK (MAR 1987)

The Contractor shall evaluate and provide recommendations on the technical approaches being considered by the Nuclear Regulatory Commission (NRC) as well as alternatives for controlling the release of solid materials that have either no, or small amounts of, radioactivity from NRC-licensed facilities.

**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 \$875,000.00.

(b) The amount presently obligated by the Government with respect to this contract is \$725,000.00.

(c) It is estimated that the amount currently allotted will cover performance through November 1, 2001.

SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**C.1 STATEMENT OF WORK****a. Summary**

The Office of Nuclear Regulatory Research of the U. S. Nuclear Regulatory Commission (NRC) has consulted with the National Research Council / National Academies about establishing a committee to evaluate and provide recommendations on the technical approaches being considered by NRC as well as alternatives for the controlling the release of solid materials that have either no, or small amounts of, radioactivity from NRC-licensed facilities. The proposed study, under the National Academies Board on Energy and Environmental Systems in the Commission on Engineering and Technical Systems, would begin in the late-summer / early-fall of 2000. A multidisciplinary committee would be formed to collect and evaluate information, develop and evaluate alternatives, and provide recommendations on controlling the release of solid materials from NRC-licensed facilities during routine operations and decommissioning. The Academy will deliver a National Research Council approved manuscript of the committee's 12 months after final approval of the Committee membership by the Council.

b. Background

The NRC has the statutory responsibility for the protection of health and safety related to the use of source, byproduct, and special nuclear material under the Atomic Energy Act. The Commission's regulations that set standards for protection of the public against radiation appear in 10 CFR Part 20. For example, Part 20 Appendix B contains specific criteria on the amount of radioactivity in gaseous and liquid releases that may be released from a NRC-licensed facility to the environment. NRC also has requirements in Subpart E of Part 20 on restricted and unrestricted use of decommissioned lands and structures. However, NRC currently has no specific requirement in Part 20 on limits for controlling the release of solid radioactive materials from NRC-licensed facilities during routine operations and decommissioning.

During normal operations and decommissioning, NRC licensees seek to release solid materials from licensee control when they are obsolete or no longer useful, or when the facility is being shut down. These solid materials include metals, concrete, soils, equipment, furniture, etc. In the absence of a national standard for the release of solid materials, NRC approaches these matters on a case-by-case basis generally through the use of license conditions and regulatory guidance such as the surface contamination criteria in Regulatory Guide 1.86, "Termination of Operating Licenses for Nuclear Reactors," or other case-specific criteria for compliance with Part 20 requirements. Although the current case-by-case

approach is considered adequate to protect public health and safety, the release levels may differ depending on the types of solid materials and radioactive contamination being surveyed. Furthermore, existing guidance does not address volumetrically contaminated materials and thus additional inconsistencies could be introduced with case-by-case reviews.

On June 30, 1999, the NRC published an Issues Paper in the Federal Register (64FR35090), indicating that the NRC was examining its approach for controlling the release of solid material. The purpose of the Issues Paper was to foster discussion about issues associated with alternative courses of action for these materials. The Issues Paper noted that the staff was examining process alternatives on whether criteria for control of solid material should be established as well as alternative technical approaches as to what the criteria might be. Although other possible alternatives are being solicited, the technical approaches under consideration include:

(1) permit release of solid material for unrestricted use if the potential dose to the public from unrestricted use of the material were less than a specified level determined during the rulemaking process. Unrestricted use could result in recycle or reuse of the material in consumer products or industrial products, or disposal of the material as waste in municipal solid waste landfills.

(2) restrict release of solid materials to only certain authorized uses. For example, future use of the material for recycling could be prohibited or could be restricted to only certain industrial uses where the potential for public exposure is small.

(3) prohibit either unrestricted or restricted release of solid material that has been in an area where radioactive material has been used or stored, and instead require the permanent disposition of all such material in a licensed low-level waste disposal facility.

(4) segregate requirements based on the type of solid material involved. For example, certain solid materials might be permitted to be released for unrestricted use (approach 1), whereas public use of other materials might be restricted (approach 2) or prohibited (approach 3).

The Federal Register Notice stated that publication of the Issues Paper was an initial step in an enhanced participatory process in which the NRC is seeking public input to its decision-making process through various forums, and invited written and electronic comment on the paper. Extensive and wide-ranging comments were received at the four public meetings and in the written public comments. Most of these comments focused on the specific technical approach or criteria that should be developed. A number of citizen groups stated that radioactively contaminated materials should not be released from NRC licensed facilities because the risks are too high, involuntary, and avoidable. Several citizen groups are concerned that release of solid materials from NRC-licensed

facilities is a means of externalizing the decommissioning costs of these facilities onto the public by recycling radioactive waste into consumer products. Potential recipients of solid material, such as scrap, metals, and cement industry representatives, also objected to unrestricted release of solid materials because they believe consumers may refuse to buy products that could contain recycled or reused materials obtained from an NRC-licensed facility thus significantly decreasing corporate sales and revenue. Conversely, the nuclear industry and the Health Physics Society note that the exposure levels discussed in the Issues Paper are in the range that scientific studies consider negligible and are a small fraction of the current NRC public dose limits in 10 CFR Part 20. Finally, several metals industry representatives suggested that NRC convene an independent panel to study the issue and propose alternatives that may be acceptable to a broad range of NRC stakeholders.

In a Staff Requirements Memorandum (SRM) dated March 8, 2000, the Commission provided direction to the staff that it request the National Research Council / National Academies Board on Energy and Environmental Systems to conduct a study and provide recommendations on possible alternatives for release of slightly contaminated solid materials.

c. Objective

The National Research Council / National Academies will establish a committee to evaluate and provide recommendations on the technical approaches being considered by NRC as well as alternatives for controlling the release of slightly contaminated solid materials from NRC-licensed facilities during normal operations and decommissioning.

d. Work Requirement

(1) The committee shall review the technical bases and policies and precedents derived therefrom set by NRC and other Federal agencies, by States, other nations and international agencies, and other standard setting bodies, including the following. The review of the following will be contingent on the NRC staff providing summaries with the salient issues of each document to the Research Council staff and committee, as well as copies of the documents, soon after project funds are received and before the first committee meeting. This review shall include the following:

NRC technical bases development, including ongoing and planned staff activities, to include the assessment of potential scenarios and pathways for radiation exposure, survey and detection methodology, and an evaluation of the environmental impacts for a variety of solid materials.

The 1997 Environmental Protection Agency Preliminary Technical Support Document for its clean metals program and other studies on the environmental impacts of clearance of materials, exemption of materials containing naturally occurring radioactive material (e.g., coal ash), and development of guidelines for screening materials imported into the U.S. that contain

radioactivity.

The 1980 Department of Energy (DOE) petition to establish exemptions for small concentrations of technetium-99 and/or low enriched uranium as residual contamination in smelted alloys and the public comment on the proposed DOE rule.

The 1990 NRC Below Regulatory Concern (BRC) Policy setting a standard for release of solid materials for recycle. In 1991 the NRC instituted a moratorium on the BRC Policy to allow more extensive public involvement, and the BRC policy was revoked by Congress in the Energy Policy Act of 1992.

DOE criteria (e.g., DOE Order 5400.5) for release of solid materials and handbooks for controlling release of property containing residual radioactive material. DOE has established a task force to review its policies on release of materials for re-use and recycling that could have implications for NRC licensees.

Conference of Radiation Control Program Directors recommendations or policies on the control of solid materials from licensed facilities.

Experience of individual States promulgating release criteria for solid materials in the absence of federal standards. For example, one State prohibits the disposal of radioactive material in municipal landfills and another State authorizes unrestricted release of volumetrically contaminated materials. Methodologies States are using to survey and detect slightly contaminated materials. Basis and criteria States are using for approving the release of these materials. Approaches States are using for similar levels of naturally occurring radioactive materials.

International Atomic Energy Agency and European Union experience, directives, recommendations or standards, especially as they pertain to international adoption of guidelines and criteria on international trade and import standards.

Recommendations of the International Commission on Radiological Protection (e.g., ICRP Report 60) and the National Council on Radiation Protection and Measurements (e.g., NCRP Report 116) and on-going activities evaluating clearance and criteria for release of slightly radioactive materials.

American National Standards Institute Standard N13.12, "Surface and Volume Radioactivity Standards for Clearance." This standard contains criteria for unrestricted release of solid materials from nuclear facilities. Also, review of the National Technology Transfer and Advancement Act of 1995 and its implications for developing and implementing alternative release criteria.

(2) Stakeholder Input.

The National Academies committee shall review public comments and reactions received so far on current and former NRC proposals to

develop alternatives for control of solid materials. Again, this review will be contingent on the NRC staff providing the committee both with the comments and summaries of the public comments and reactions received. The committee shall explicitly consider how to address public perception of risks associated with the direct reuse, recycle, or disposal of solid materials released from NRC-licensed facilities. The committee shall provide recommendations for Commission consideration on how comments and concerns of stakeholders can be integrated into an acceptable approach for proceeding to address the release of solid materials.

(3) The committee shall:

a) Determine whether there are sufficient technical bases to establish criteria for controlling the release of slightly contaminated solid materials. This should include an evaluation of methods to identify the critical groups, exposure pathway(s), assessment of individual and collective dose, exposure scenarios, and the validation and verification of exposure criteria for regulatory purposes (i.e., decision making and compliance). Is there adequate, affordable measurement technology for NRC-licensees to verify and demonstrate compliance with a release criteria? What, if any, additional analyses or technical bases are needed before release criteria can be established?

b) Recommend whether NRC should: (1) continue the current system of case-by-case decisions on control of material using existing, revised, or new (to address volumetrically contaminated materials) regulatory guidance, (2) establish a national standard by rulemaking, to establish generic criteria for controlling the release of solid materials, or (3) consider another alternative approach(es).

o If the committee recommends continuation of the current system of case-by-case decisions, the committee shall provide recommendations on if and how the current system of authorizing the release of solid materials should be revised.

o If the committee recommends that NRC promulgate a national standard for the release of solid material, the committee shall: (1) recommend an approach, (2) set the basis for release criteria (e.g., dose, activity, or detectability-based), and (3) suggest a basis for establishing a numerical limit(s) with regard to the release criteria or, if the committee deems appropriate, propose a numerical limit.

c) Recommend how the NRC might consider international clearance (i.e., solid material release) standards in its implementation of the recommended technical approach.

e. Level of Effort

It is anticipated that the contractor will spend approximately 3.6 staff years.

f. Period of Performance

The Academy will deliver a National Research Council approved manuscript of the committee's report 12 months after final approval of the Committee membership by the Council. Milestones and a time line for different stages of the committee's work are to be provided early in the study. The period of performance includes time required for NAs review of the report.

g. Travel

It is anticipated that the National Research Council will convene approximately five (5) committee meetings, one or more of which may be convened outside the Washington, DC area. National Research Council project staff shall meet with NRC approximately bimonthly during the period of performance.

h. NRC Furnished Materials

The NRC Project Manager will begin providing the National Research Council with relevant background material, including the comments and summaries from NRC staff as specified in C.1.d(1) and C.1.d.(2), immediately after contract award. The National Research Council is also encouraged to obtain other relevant sources of data and information not provided by the NRC. At its first meeting, the committee will be briefed by the NRC staff on the objectives and scope of the study. The NRC staff may attend all open information-gathering sessions of the committee meetings.

i. Deliverables

Monthly Letter Status Report

Submit a monthly business letter report within 15 days after the end of the month, detailing schedule and cost status. The schedule status shall include accomplishments during the reporting period and planned activities for the next period. The status of each task, milestone, and deliverable, along with expenditures versus forecast, shall also be included.

Product and Dissemination Plan

The committee shall produce a report with recommendations regarding alternatives for controlling the release of slightly contaminated solid material. The final report shall be reviewed and widely disseminated in accord with National Research Council procedures. The final report shall be provided to NRC 3 working days prior to public release. Reports resulting from this effort shall be prepared in sufficient quantity to ensure their distribution to the sponsor, to committee members, and to other relevant parties, in accordance with National Academies policy. Reports shall be posted on the Internet and made available to the public without restriction.

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
52.246-9	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1) INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM)	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
52.249-5	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1) TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (EDUCATIONAL AND OTHER NONPROFIT INSTITUTIONS)	SEP 1996
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:

(a) 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.

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 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 contract period of performance, and the reporting period covered by the report. Each report may be submitted in any form that the contractor desires, so long as it addresses the following:

- (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) Travel status: List the starting and ending dates for each trip, the starting point and destination, and the traveler(s) for each trip.
- (j) 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 FA 52.232-22.

The National Academies may use the Financial Reporting Form (see Attachment 1 in Section J - List of Attachments) as long as the total estimated amount of the contract is added and an addendum addressing the requirements under this Section F.3, where applicable, are addressed.

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 (E. Vincent Holahan copies)

(PROJ-OFFICER-ADD2) (PROJ-OFFICER-ADD3) (PROJ-OFFICER-ADD4) (PROJ-OFFICER-ADD1)

(b) Contracting Officer (1 copy)

F.6 DURATION OF CONTRACT PERIOD (MAR 1987)

This contract shall commence on the effective date of this contract and will expire February 28, 2002.

SECTION G - CONTRACT ADMINISTRATION DATA**G.1 2052.215-71 PROJECT OFFICER AUTHORITY (OCT 1999)**

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

Name: E. Vincent Holahan
Address: U.S. Nuclear Regulatory Commission
Ofc. of Nuclear Regulatory Research
Washington, DC 20555

Telephone Number: (301) 415-6272

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

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

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

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

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

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

(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 to the instruction or direction is subject to 52.233-1 - Disputes.

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

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

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

(3) Review all costs requested for reimbursement by the contractor and submit to the contracting officer recommendations for

approval, disapproval, or suspension of payment for supplies and services required under this contract.

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:

(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. 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 exemptions to the Freedom of Information Act (5 U.S.C. Section 552(b) (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, except as may be required by valid court or administrative order.

(2) In addition, the contractor agrees that, to the extent it receives or is given access to data protected by the exemptions to the Freedom of Information Act (5 U.S.C. Section 552(b) (1986)), which may include confidential or privileged technical, business or financial information or personal privacy 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:

James Zucchetto

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 not provide any equipment/property under this contract.

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	OCT 1995
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	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER	JUN 1996
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	JUN 1999
52.215-2	AUDIT AND RECORDS--NEGOTIATION	JUN 1999
52.215-8	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT	OCT 1997
52.215-10	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA	OCT 1997
52.215-11	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--MODIFICATIONS	OCT 1997
52.215-12	SUBCONTRACTOR COST OR PRICING DATA	OCT 1997
52.215-13	SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS	OCT 1997
52.215-15	PENSION ADJUSTMENTS AND ASSET REVERSIONS (DEC 1998)	DEC 1998
52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (PRB)	OCT 1997
52.215-19	NOTIFICATION OF OWNERSHIP CHANGES	OCT 1997

52.216-11	COST CONTRACT--NO FEE	APR 1984
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	OCT 1999
52.222-3	CONVICT LABOR	AUG 1996
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB 1999
52.222-26	EQUAL OPPORTUNITY	FEB 1999
52.222-35	AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA	APR 1998
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN 1998
52.222-37	EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA	JAN 1999
52.223-6	DRUG-FREE WORKPLACE	JAN 1997
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUL 2000
52.227-1	AUTHORIZATION AND CONSENT	JUL 1995
52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS	MAR 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
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	OCT 1995
52.242-13	BANKRUPTCY	JUL 1995
52.243-2	CHANGES--COST REIMBURSEMENT ALTERNATE V (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 AND COMMERCIAL COMPONENTS	OCT 1998
52.246-25	LIMITATION OF LIABILITY--SERVICES	FEB 1997
52.249-5	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (EDUCATIONAL AND OTHER NONPROFIT INSTITUTIONS)	SEP 1996
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

**I.2 52.215-21 REQUIREMENTS FOR COST OR PRICING DATA
OR INFORMATION OTHER THAN COST OR PRICING DATA--
MODIFICATIONS (OCT 1997)**

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.403-4 on the date of the agreement on price or the date of the award, whichever is later, the Contractor may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable--

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or

similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Information on modifications of contracts or subcontracts for commercial items. (A) If--

(1) The original contract or subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was based on adequate price competition or prices set by law or regulation, or was a contract or subcontract for the acquisition of a commercial item; and

(2) The modification (to the contract or subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or subcontract from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.

(B) For a commercial item exception, the Contractor shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold that is adequate for evaluating the reasonableness of the price of the modification. Such information may include--

(1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.

(2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.

(3) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(4) The Contractor grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the Contractor is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The Contractor shall submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

(2) As soon as practicable after agreement on price, but before award

(except for unpriced actions), the Contractor shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

I.3 52.216-7 ALLOWABLE COST AND PAYMENT (MAR 2000)

(a) Invoicing. The Government shall 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 Subpart 31.7 of the Federal Acquisition Regulation (FAR) 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.

(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) Within 120 days after settlement of the final indirect cost rates covering the year in which this contract is physically complete (or longer, if approved in writing by the Contracting Officer), the Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates.

(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)(4) 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.4 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):

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS
SECTION J - LIST OF ATTACHMENTS

ATTACHMENT NUMBER	TITLE	DATE	NO. PAGES
1	Financial Reporting Form	8/31/2000	1

Financial Reporting Form

Project Task:
 Contract No.:
 Contract Period:
 Reporting Period:
 Date of Report:

Contractor Name and Address:
 National Academy of Sciences
 2101 Constitution Avenue, N.W.
 Washington, D.C. 20418

Expenditure Category	Cumulative Incurred Cost at End of Prior Period	Incurred Cost Current Period	Cumulative Cost to Date (D + E)	Estimated Cost to Complete	Estimated Cost at Completion (F + G)	Funded Contract Amount	Variance (Over) or Under (I - H)
A	D	E	F	G	H	I	J
Direct Labor	0	0	0	0	0	0	0
Fringe Benefits	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0
Travel	0	0	0	0	0	0	0
Offsite Personnel /Consultants	0	0	0	0	0	0	0
Other Direct Costs	0	0	0	0	0	0	0
General & Administrative Costs	0	0	0	0	0	0	0
Total Cost	0	0	0	0	0	0	0

ATTACHMENT 1

Contract No. NRC-04-00-050

Dated: 8/31/2000