

AWARD CONTRACT

1. SOLICITATION NUMBER: NRC-04-82-024
 2. EFFECTIVE DATE: 8/2/82
 3. MODIFICATION/PURCHASE REQUEST PREFIX NO.
 4. CERTIFIED FOR NATIONAL DEFENSE UNDER EDISA REG. 2 AND OF DMS REG. 1.
 5. ISSUED BY: U. S. Nuclear Regulatory Commission, Division of Contracts, Washington, DC 20555
 6. ADMINISTERED BY: (If other than block 5)
 7. DELIVERY FOB DESTINATION: NATION, OTHER (See below)

8. CONTRACTOR NAME AND ADDRESS: The Regents of the University of Michigan, Attn: David Plawchan, 222 Research Administration Building, Ann Arbor, MI 48109
 9. DISCOUNT FOR PROMPT PAYMENT: Net
 10. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN BLOCK 12

11. SHIP TO/MARK FOR: U. S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research, Division of Contracts
 12. PAYMENT WILL BE MADE BY: U. S. Nuclear Regulatory Commission, Office of Resource Management, Division of Accounting and Finance ATTN: GOV/COM ACCOUNTS, Washington, DC 20555

13. THIS PROCUREMENT WAS ADVERTISED, NEGOTIATED, PURSUANT TO: 10 U.S.C. 2304 (a)(1), 41 U.S.C. 252 (a)(1)

14. ACCOUNTING AND APPROPRIATION DATA: B&R No. 60-19-31, FIN No. B8285, Total NRC Obligated Amount: \$28,000.00

15. ITEM NO.	16. SUPPLIES/SERVICES	17. QUANTITY	18. UNIT	19. UNIT PRICE	20. AMOUNT
	AWARD OF A COST SHARING CONTRACT FOR A RESEARCH STUDY ENTITLED "CONSTRUCTION AND CALIBRATION OF A STRONTIUM - 90 IRRADIATOR FOR MULTIPLE DOSIMETER IRRADIATIONS." University of Michigan Contribution	1	1	28,000	\$28,000 \$931

21. TOTAL AMOUNT OF CONTRACT \$ 28,931.00

22. CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ 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 enacted or incorporated by reference herein. (Attachments are listed herein.)
 26. AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.

23. NAME OF CONTRACTOR: THE REGENTS OF THE UNIVERSITY OF MICHIGAN
 BY: C. W. Matthews (Signature of person authorized to sign)
 27. UNITED STATES OF AMERICA
 BY: Kellogg V. Morton (Signature of Contracting Officer)
 24. NAME AND TITLE OF SIGNER: C. W. Matthews, Controller
 25. DATE SIGNED: SEP 16 1982
 28. NAME OF CONTRACTING OFFICER: Kellogg V. Morton
 29. DATE SIGNED: 11/8/82

SCOPE OF WORK, TERMS AND CONDITIONS

ARTICLE I - STATEMENT OF WORK AND DELIVERABLES

1. Investigate multiple dosimeter irradiator designs;
2. Design an irradiator for the permanent testing facility;
3. Build the irradiator;
4. Calibrate the irradiator using the UM extrapolation chamber;
5. Compare the multiple dosimeter irradiator to the single beta irradiator used for the pilot study by irradiating dosimeters;
6. Augment Task 5, as stated above, to include obtaining and irradiating all representative types of beta dosimeters used by participants in the pilot studies;
7. Write a final report on the construction and calibration of the multiple dosimeter beta irradiator; and
8. Augment Task 6, as stated above, by including an analysis of savings that will result to the PTL as a result of utilizing the multiple dosimeter irradiator for conducting proficiency testing in the beta category.

ARTICLE II - PERIOD OF PERFORMANCE

The performance of work described in ARTICLE I hereof shall commence as of the effective date of this contract and shall continue to completion thereof, estimated to occur within six (6) months after said contract is effective. Specifically, the contract period is from August 2, 1982 to January 31, 1983.

ARTICLE III - CONSIDERATION AND PAYMENT

A. Estimated Cost and Obligation

1. It is estimated that the total cost for full performance of this contract will be \$28,931.00. The Government share shall be \$28,000.00. The contractor's share shall be \$931.00. This amount, \$28,931.00, shall be a ceiling amount the contractor shall not exceed without prior written approval of the Contracting Officer. The total estimated cost and any increase in the total estimated cost of the work specified in ARTICLE I of this contract will be shared by the parties as follows:
 1. Commission - 96.8%
 2. Contractor - 3.2%
2. The amount obligated by the Government with respect to this contract is \$28,000.00.

B. Payment

The Government shall render payment to the contractor in approximately thirty (30) days after submission of proper and correct invoices or vouchers.

Additional provisions relating to payment are contained in Financial Provisions No. 5 of the General Provisions hereto.

ARTICLE IV - OVERHEAD/GENERAL AND ADMINISTRATIVE RATES

Pending the establishment of final overhead rates which shall be negotiated based on audit of actual costs, the contractor shall be reimbursed for allowable indirect costs hereunder at the predetermined rate of 50 percent of modified total direct costs, excluding equipment.

ARTICLE V - KEY PERSONNEL

Pursuant to this ARTICLE (Key Personnel), the following individuals are considered to be essential to the successful performance of the work hereunder and shall not be replaced without the prior approval of the Contracting Officer. In such event, the contractor agrees to substitute persons possessing substantially equal abilities and qualifications satisfactory to the Contracting Officer.

Joseph Miklos
Phillip Plato

ARTICLE VI - TECHNICAL DIRECTION

A. Performance of the work under this contract shall be subject to the technical direction of the NRC Project Officer named in ARTICLE VII of this contract. 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, requires pursuit of certain lines of inquiry, fills in details or otherwise serves to accomplish the contractual scope of work.
2. Providing assistance 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.

B. Technical direction must be within the general scope 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 additional work outside the general scope of the contract.

2. Constitutes a change as defined in the clause of the General Provisions, entitled "Changes."
 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.
- C. ALL TECHNICAL DIRECTIONS SHALL BE ISSUED IN WRITING BY THE PROJECT OFFICER OR SHALL BE CONFIRMED BY SUCH PERSON IN WRITING WITHIN TEN (10) WORKING DAYS AFTER VERBAL ISSUANCE. A copy of said written direction shall be submitted to the Contracting Officer.

The contractor shall proceed promptly with the performance of technical directions duly issued by the Project Officer in the manner prescribed by this article and within such person's authority under the provisions of this article.

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 B(1) through (4) above, the contractor shall not proceed but shall notify the Contracting Officer in writing within five (5) working days after the receipt of any such instruction or direction and shall request the Contracting Officer to modify the contract accordingly. Upon receiving such 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.

- D. 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.
- E. 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 shall be subject to the provisions of the contract clause entitled "Disputes."

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ARTICLE VII - PROJECT OFFICER

Nancy Dennis is hereby designated as the Contracting Officer's authorized representative (hereinafter called Project Officer) for technical aspects of this contract. The Project Officer is not authorized to approve or request any action which results in or could result in an increase in contract cost; or issue any unilateral directive whatever.

The Project Officer is responsible for: (1) monitoring the contractor's technical progress, including surveillance and assessment of performance, and recommending to the Contracting Officer changes in requirements; (2) interpreting the scope of work; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this contract; and (5) assisting the contractor in the resolution of technical problems encountered during performance. Within the purview of this authority, the Project Officer is authorized to review all costs requested for reimbursement by contractors and submit recommendations for approval, disapproval, or suspension for supplies, services required under the contract. The Contracting Officer is responsible for directing or negotiating any changes in terms, conditions, or amounts cited in the contract.

For guidance from the Project Officer to the contractor to be valid, it must: (1) be consistent with the description of work set forth in the contract; (2) not constitute new assignment of work or change to the expressed terms, conditions or specifications incorporated into this contract; (3) not constitute a basis for an extension to the period of performance or contract delivery schedule, and, as stated above, (4) not constitute a basis for any increase in the contract cost.

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ARTICLE VIII - CONFLICT OF INTEREST

- (a) Purpose. The primary purpose of this article is to aid in ensuring that the contractor:
- (1) is not placed in a conflicting role because of current or planned interest (financial, contractual, organizational, or otherwise) which relates 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 herein shall apply to performance or participation by the contractor as defined in 41 CFR s20-1.5402(f) in the activities covered by this article.
- (c) Work for others. 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 who are employed full time under this contract and employees designated as key personnel, if any, under this contract abide by the provision of this article. If the contractor believes with respect to itself or any such 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 prior to execution of such contractual arrangement.
- (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, it does not have any organizational conflicts of interest, as defined in 41 CFR s20-1.5402(a).
 - (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 shall 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 for convenience if it deems such termination to be in the best interests of the Government.
- (e) Access to and use of information.
- (1) If the contractor in the performance of this contract obtains access to information, such as NRC plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (Pub. L. 93-579), or data which has not been

released to the public, the contractor agrees not to: (i) use such information for any private purpose until the information has been released to the public; (ii) compete for work for the Commission based on such information for a period of six (6) months after either the completion of this contract or the release of such information to the public, whichever is first, (iii) submit an unsolicited proposal to the Government based on such information until one year after the release of such information to the public, or (iv) release the information without prior written approval by the Contracting Officer unless such 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 (Pub. L. 93-579), or other confidential or privileged technical, business, or financial information under this contract, the contractor shall treat such information in accordance with restrictions placed on use of the information.
- (3) The contractor shall have, subject to patent and security provisions of this contract, 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 41 CFR s20-1.5402(h), the contractor shall include this article, including this paragraph, in subcontracts of any tier. The terms "contract," "contractor," and "Contracting Officer," shall be appropriately modified to preserve the Government's rights.
- (g) Remedies. For breach of any of the above proscriptions or for intentional nondisclosure or misrepresentation of any relevant interest required to be disclosed concerning this contract or for such erroneous representations as necessarily imply bad faith, the Government may terminate the contract for default, disqualify the contractor from subsequent contractual efforts, and pursue other remedies as may be permitted by law or this contract.
- (h) Waiver. A request for waiver under this clause shall be directed in writing through the Contracting Officer to the Executive Director for Operations (EDO) in accordance with the procedures outlined in s20-1.5411.

ARTICLE IX - GENERAL PROVISIONS/ALTERATIONS

A. General Provisions

The contract is subject to the attached provisions of Appendix A, General Provisions, entitled "Cost Type Research and Development Contracts With Educational Institutions," dated January 6, 1982.

B. Alterations

1. Clause 5.1 entitled "Limitation of Cost" is deleted in its entirety, and a new clause entitled "Limitation of Cost (Cost Sharing)," as shown below, is substituted in lieu thereof.

CLAUSE 5.1 - LIMITATION OF COST (COST-SHARING)

- (a) It is estimated that the cost to the Government for the performance of this contract (exclusive of any fee) will not exceed the estimated cost to the Government set forth in the Schedule, and the Contractor agrees to use his best efforts to perform the work specified in the Schedule and all obligations under this contract within such estimated cost to the Government plus the share of the cost of performance agreed to be borne by the Contractor, as set forth in the Schedule. If, at any time, the Contractor has reason to believe that the costs which he expects to be incurred in the performance of this contract in the next succeeding 60 days, when added to all costs previously incurred, will exceed 75 percent of the estimated total cost to the Government and to the Contractor then set forth in the Schedule, or if, at any time, the Contractor has reason to believe that the total cost for the performance of this contract (exclusive of any fee) will be greater or substantially less than the then estimated total cost thereof. The Contractor shall notify the Contracting Officer in writing to that effect, giving his revised estimate of such total cost for the performance of this contract.
- (b) Except as required by other provisions of this contract, specifically citing and stated to be an exception from this clause, the Government shall not be obligated to reimburse the Contractor for costs incurred in excess of the estimated cost to the Government set forth in the Schedule, and the Contractor shall not be obligated to continue performance under the contract (including actions under the Termination clause) or otherwise to incur costs in excess of the estimated total cost set forth in the Schedule, unless and until the Contracting Officer shall have notified the Contractor in writing that such estimated total cost has been increased and shall have specified in such notice a revised estimated total cost which shall thereupon constitute the estimated total cost of performance of this contract. The increase in such estimated total cost shall be allocated in accordance with the formula set forth in the Schedule governing such increases. No notice, communication, or representation in any other form or from any person other than the Contracting Officer shall affect the estimated cost to the Government of this contract. In the absence of the specified notice, the Government shall not be obligated to reimburse the Contractor for any costs in excess of the estimated cost to the Government set forth in the Schedule, whether those excess costs were incurred during the course of the contract or as a result of termination. When and to the extent that the estimated total cost set forth in the Schedule has been increased, any costs incurred by the Contractor in excess of the estimated total cost prior to such increase shall be allowable to the same extent and in the same percentage as if such costs had been incurred after the increase; unless the Contracting Officer issues a termination or other notice and directs that the increase is solely for the purpose of covering termination or other specified expenses.

- (c) Change orders issued pursuant to the Changes clause of this Contract shall not be considered an authorization to the Contractor to exceed the estimated cost to the Government set forth in the Schedule in the absence of a statement in the change order, or other contract modification, increasing the estimated cost.
- (d) In the event this contract is terminated or the estimated cost not increased, the Government and the Contractor shall negotiate an equitable distribution of all property produced or purchased under the contract based upon the share of costs incurred by each.