

2. AMENDMENT/MODIFICATION NO. 2	3. EFFECTIVE DATE NOV 12 2003	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
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6. ISSUED BY U.S. Nuclear Regulatory Commission Division of Contracts Attn: T-7-I-2 Contract Management Center 2 Washington DC 20555	7. ADMINISTERED BY (If other than Item 6) U.S. Nuclear Regulatory Commission Div of Contracts Two White Flint North - MS T-7-I-2 Washington, DC 20555
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  Pennsylvania State University ATTN: Mr. John Hannold, Lead Negotiator Office of Sponsored Programs 110 Technology Ctr, 200 Innovation Blvd. University Park PA 16802	(X)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO. NRC-04-03-059
		10B. DATED (SEE ITEM 13) 03-13-2003

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment of each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

31X0200.460	252A	Y6671
46015110205	Amount Obligated: \$86,000.00	

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

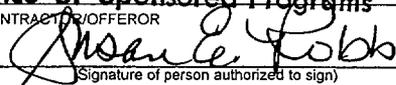
(X)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Changes - Cost Reimbursement Alternate I (APR 1984) FAR 52.243-2

**E. IMPORTANT:** Contractor  is not,  is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

(see page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) <b>Susan E. Robb, Senior Associate Director</b> Office of Sponsored Programs	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Mary Mace, Contracting Officer
15B. CONTRACTOR/OFFEROR  Signature of person authorized to sign	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)
15C. DATE SIGNED <b>NOV 12 2003</b>	16C. DATE SIGNED 11/14/03

This modification is issued to (1) revise the contract in accordance with the attached Statement of Work (ATTACHMENT 1) and incorporate the contractor's proposal dated 10/22/03, (2) increase the contract ceiling by \$86,000.00 from \$300,000.00 to \$386,000.00, (3) revise the obligated amount under the subject contract, and (4) extend the period of performance. Accordingly, the contract is hereby modified as follows:

- (1) Section B.3, Consideration and Obligation-Cost Reimbursement (JUN 1988), paragraphs (a) and (b) are deleted in their entirety and the following paragraphs are substituted in lieu thereof:

"a. The total estimated cost to the Government for full performance under this contract is \$386,000.00

b. The amount obligated by the Government with respect to this contract is \$386,000.00."

- (2) Section F.6, Duration of Contract Period, is deleted in its entirety and the following sentence is substituted in lieu thereof:

"This contract shall commence on March 3, 2003 and will expire on May 2, 2004."

A summary of obligations for this contract, from date of award through the date of this action, is given below:

Total FY2003 Obligations:	\$300,000.00
Total FY2004 Obligations:	\$ 86,000.00
Cumulative Total of NRC Obligations:	\$386,000.00

This modification obligates \$86,000.00 in FY2004 funds.

All other terms and conditions remain the same.

## STATEMENT OF WORK

## ROD BUNDLE HEAT TRANSFER TEST PROGRAM, PHASE 2

The contractor shall add the following task:

Task 1A. Installation of a Boiler and Associated Instrumentation

The contractor shall install a boiler and the associated instrumentation for flow measurement and control and check the test facility out to make it ready for a series of steam cooling tests.

Reporting Requirement:

The contractor shall prepare a letter report on the completion of the boiler installation and checkout within three months after implementation of this contract modification. A facility description report shall be updated to include the boiler and the associated instrumentation.

Deliverable and Schedule:

1. A letter report on boiler and instrumentation installation and checkout within 3 months after contract modification.
2. An updated facility description report to include the boiler and the associated instrumentation within 3 months after contract modification.

Travel: None

Period of Performance: Effective Date of Modification No. 2 through  
May 2, 2004