

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1 CONTRACT ID CODE

PAGE OF PAGES

1

2 AMENDMENT/MODIFICATION NO.

3 EFFECTIVE DATE

4 REQUISITION/PURCHASE REQ. NO.

5 PROJECT NO (If applicable)

4

DEC 27 2000

6 ISSUED BY

CODE

7 ADMINISTERED BY (If other than Item 6)

CODE

U.S. Nuclear Regulatory Commission  
 Division of Contracts and Property Mgt.  
 Attn: T-7-I-2  
 Contract Management Branch  
 Washington DC 20555

8 NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)

Oregon State University  
 ATTN: Mr. Jose Reyes, Jr., P.I.  
 The Department of Nuclear Engineering  
 116 Radiation Center  
 Corvallis OR 97331-5902

(X)

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

10A. MODIFICATION OF CONTRACT/ORDER NO.  
 Con# NRC-04-99-040

10B. DATED (SEE ITEM 13)

X

02-01-1999

**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.

2 ACCOUNTING AND APPROPRIATION DATA (If required)

31X0200.160 252A Amount Obligated: \$263,000.00  
 16015110135 W6699

**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:

D. OTHER (Specify type of modification and authority) Changes - Cost Reimbursement Alternate V (APR 1984)

**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)

CLEM LaCAVA  
 Asst Contract Administrator

16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Mary Mace, Contracting Officer

15B CONTRACTOR/OFFEROR

15C DATE SIGNED

16B UNITED STATES OF AMERICA

16C DATE SIGNED

*Clem LaCava*  
 (Signature of person authorized to sign)

12/27/00

BY *Mary Mace*  
 (Signature of Contracting Officer)

12-14-2000

This modification is issued to (1) modify the contract according to the attached Statement of Work, (2) exercise the second option year through 12/31/2001, (3) increase the contract ceiling by \$263,000 from \$798,587 to \$1,061,587, and (4) increase the obligated amount by \$263,000 from \$765,000 to \$1,028,000. Accordingly, the contract is hereby modified as follows:

- (1) Under Section B.3, Consideration and Obligation-Cost Reimbursement (JUN 1988), Alternate I (JUN 1988), paragraphs (a) and (f) 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 \$1,061,587."

"f. The amount presently obligated by the Government with respect to this contract and the second option year is \$1,028,000."

- (2) Under Section F.7, Duration of Contract Period (MAR 1987), Alternate I (MAR 1987), the second and third sentences are deleted and substituted with the following sentences in lieu thereof:

"The second option year shall commence on 1/1/2001 and will expire on 12/31/2001. The term of the contract may be extended at the option of the Government for 2 additional option periods."

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

Total FY1999 Obligations:	\$ 325,000
Total FY2000 Obligations:	\$ 440,000
Total FY2001 Obligations:	\$ 263,000
 Cumulative Total of NRC Obligations:	 \$1,028,000

This modification obligates \$263,000 in FY2001 funds.

All other terms and conditions remain the same.

## STATEMENT OF WORK

### 1. WORK SCOPE

The Contractor shall perform Test Series 5 as described in the base contract dated February 1, 1999. The actual test conditions to be used will be specified later by the NRC. The main purpose of this test series is to obtain a set of data for assessing code models for entrainment and de-entrainment of liquid. If a test matrix described in Test Series 5 can be made more suitable for the existing test facility, it should be proposed. An adequate amount of instrumentation shall be provided to measure the liquid level at each component; e.g., hot leg, pressurizer and its surge line, and automatic depressurization system (ADS) lines.

### 2. DOCUMENTATION

At the completion of each test or a group of tests, a report shall be prepared and submitted to the NRC. Computer code input decks used in this project and notebooks for developing or modifying input decks as part of this project shall also be provided electronically as well as in paper form.

### 3. TRAVEL

- a. Two 3-day trips by one person from Corvallis, OR to Rockville, MD, and
- b. One trip to Paris, France, on December 11-15, 2000, to participate in negotiations of an expanded PTS test matrix and data exchange with the organizations representing the French government (IPSN and EDF).

### 4. SCHEDULE FOR PERFORMANCE

The test series should be completed by December 31, 2001.

### 5. DELIVERABLES

A test report should be provided for each test or a group of tests. Computer code input decks used in this project and explanations of how their numerical numbers are derived as part of this project shall also be provided electronically as well as in paper form.