

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1 CONTRACT ID CODE PAGE OF PAGES  
1 3

2 AMENDMENT/MODIFICATION NO 23  
 3 EFFECTIVE DATE NOV 30 2000  
 4 REQUISITION/PURCHASE REQ NO RES-96-060 -11/6/00 RFPA No.  
 5 PROJECT NO. (If applicable) RESC01-313

6 ISSUED BY U.S. Nuclear Regulatory Commission  
 Division of Contracts and Property Mgt.  
 Attn: T-7-I-2  
 IT Acquisition Management Branch  
 Washington DC 20555  
 7 ADMINISTERED BY (If other than Item 6)  
 CODE

8 NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)  
 Information Systems Laboratories, Inc.  
 Nancy L. Aguinaldo  
 Contracts Manager  
 11140 Rockville Pike, Suite 500  
 Rockville MD 20852  
 9A. AMENDMENT OF SOLICITATION NO (X)  
 9B. DATED (SEE ITEM 11)  
 10A. MODIFICATION OF CONTRACT/ORDER NO  
 Con# NRC-04-96-060  
 SBA#  
 10B. DATED (SEE ITEM 13) X  
 09-23-1996  
 CODE FACILITY CODE

**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)

See page 2.

**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) FAR 52.217-9, 52.243-2, and mutual agreement of the parties.  
 X

**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 pages 2-3 for description of modification.

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) James F. Meyer V.P.  
 15B CONTRACTOR OFFEROR (Signature of person authorized to sign)  
 15C DATE SIGNED 11/30/00  
 16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Mark J. Flynn Contracting Officer  
 16B UNITED STATES OF AMERICA BY (Signature of Contracting Officer)  
 16C DATE SIGNED 11/30/00

The purpose of this modification is to increase the ceiling of the contract by \$598,246.00 from \$3,661,683.06 to \$4,259,929.06 to accommodate a within-scope change for performance of Option Year 4, inclusive of Task 5B. This effort shall be performed in accordance with the contract statement of work as modified by the attached, and the Contractor's technical proposal dated November 15, 2000, hereby incorporated. This modification also provides incremental funding in the amount of \$600,000.00 for performance of the Option Year 4 effort. Accordingly, the contract is modified as follows:

Under Section B.3, "Consideration and Obligation -- Cost Plus Fixed Fee," paragraphs a, e, and f are deleted in their entirety and replaced with the following in lieu thereof:

- "a. The total estimated cost to the Government for full performance of this contract is \$4,259,929.06 of which the sum of \$3,976,571.57 represents the estimated reimbursable costs and of which \$283,357.49 represents the fixed fee.
- e. The amount presently obligated by the Government with respect to this contract is \$4,242,828.91.
- f. It is estimated that the amount currently allotted will cover performance through September 22, 2001."

Section F.6, "Duration of Contract Period (MAR 1987), Alternate 2 (MAR 1987)," is hereby deleted in its entirety and substituted with the following:

"This contract shall commence on 09/23/96 and will expire on 09/22/01."

Accounting Data for Modification No. 23 is as follows:

Commitment No:	RESC01-313
APPN No:	31X0200.160
B&R No:	16015110105
JOB CODE:	W6667
BOC No:	252A
Obligated Amount:	\$600,000.00

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

JCN#	FY96	FY97	FY98	FY98 DEOB.	FY99	FY00	FY01	Total
F6950		90,000.00			60,000.00	26,840.91		176,840.91
F6946		44,985.00			45,000.00			89,985.00
F6353						2,072.00		2,072.00
F6352						29,966.00		29,966.00
F6351						3,514.00		3,514.00
F6350						14,448.00		14,448.00
F6011			25,000.00					25,000.00
F6059			25,000.00		9,000.00			34,000.00
Y6008			120,000.00	23,212.00				96,788.00
W6667	100,000.00	577,503.00	800,000.00		960,000.00	732,712.00	600,000.00	3,770,215.00
Total	100,000.00	712,488.00	970,000.00	23,212.00	1,074,000.00	809,552.91		\$4,242,828.91

This modification obligates FY2001 funds in the amount of \$600,000.00.

All other terms and conditions of this contract remain unchanged.

Attachment: Option Year 4 SOW Revision

## ATTACHMENT

### Modification to Contract No. NRC-04-96-060, Maintenance of TRAC-BWR Thermal-Hydraulic Simulation Computer Code for Reactor Transients

#### FOR OPTION YEAR 4

This is for modifying Contract No. NRC-04-96-060, "Maintenance of TRAC-BWR Thermal-Hydraulic Simulation Computer Code for Reactor Transients" for Option Year 4, which has two main categories of work; the maintenance for TRAC-B code and the consolidation of the TRAC code. Because of the limited number of TRAC-B users and the small CAMP membership, a reduction in the level of effort for the maintenance portion of the contract should be considered. On the other hand, the code consolidation effort should take a majority of effort. The revised work scope is further detailed below:

#### TASK 1.A: Technical Support to NRC

This task covers miscellaneous small technical support to the NRC needed for maintaining the TRAC-B code, executing the Code Application and Maintenance Program (CAMP), and assessing the consolidated TRAC-M code.

Estimated level of effort = 1.0 man-month.

#### TASK 5B: Code Consolidation

This task consists of implementing the TRAC-B components and RELAP5 unique functions into the TRAC-M code. The TRAC-B components have already been implemented in TRAC-M, but the RELAP5 unique functions have not been implemented yet. Thus, in FY 2001 the majority of resources will be spent for the RELAP5 functionality consolidation as described below:

#### TASK 5B1: RELAP5 Hydraulic Component Functionality Consolidation

TRAC-M will have the ability to run RELAP5 input models. The modeling philosophy of the two codes differ and therefore logic must be incorporated into TRAC-M to instantiate TRAC-M components from those specified in the RELAP5 input model. The components to be incorporated into TRAC-M include Pipe and Annulus, Single Junction, Single Volume, Time Dependent Junction, Time Dependent Volume, the Branch and Branch-based components. This shall be done using the current connectivity of the TRAC-M components, as specified in the RELAP5 Functionality Consolidation Document provided by the NRC. Developmental assessment, which will be done at a later stage, will determine if the RELAP5 connectivity features must be added to those of TRAC-M. Physical models will be selected and implemented into the code during the developmental assessment stage so that these features do not have to be incorporated now. However, this work must be completed eventually such that the TRAC-M code is able to handle all input options allowed by RELAP5 unless technical direction is given by NRC to the contrary. NRC SQA (software quality assurance) procedures shall be followed by each

component incorporated and the deliverable uploaded to the NRC code development website.

Estimated level of Effort: 24 man-months

#### TASK 5B2: Documentation Upgrades

The software documents developed as part of the TRAC-B component consolidation task and the RELAP5 hydraulic component functionality task must be incorporated into the TRAC-M Manual series. In addition, user guidelines on how to model a BWR system shall be developed for the User Guide. The deliverable shall be provided in electronic frame maker format as well as in paper format.

Estimated Level of Effort: 6 man-months

#### TRAVEL

Two one-man trips for two days each to the Rockville Office from Idaho Falls, ID, and one foreign trip to CAMP meeting should be planned.

#### SCHEDULE FOR PERFORMANCE

The TRAC Maintenance and Consolidation Project for Option Year 4 should be completed by September 22, 2001.

#### DELIVERABLES

TRAC-M Programmer's Manual and User Guidelines for BWR applications and RELAP5 functionality consolidation, a BWR component input report, and all assessment reports shall be delivered along with input decks in a frame-maker format. In addition, all model revisions resulting from code assessment work shall be documented and delivered.