

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

BPA NO. 1. CONTRACT ID CODE PAGE 1 OF PAGE 5

2. AMENDMENT/MODIFICATION NO. 002  
 3. EFFECTIVE DATE See Block 15C.  
 4. REQUISITION/PURCHASE REQ. NO. RES-06-071  
 5. PROJECT NO.(if applicable)

6. ISSUED BY CODE 3100  
 U.S. Nuclear Regulatory Commission  
 Div. of Contracts  
 Attn: Adelis M Rodriguez, 301-415-5719  
 Mail Stop T-7-I-2  
 Washington, DC 20555  
 7. ADMINISTERED BY (If other than Item 6) CODE 3100  
 U.S. Nuclear Regulatory Commission  
 Div. of Contracts  
 Mail Stop T-7-I-2  
 Attn: Michael Mills, 301-415-6550  
 Washington, DC 20555

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  
 INFORMATION SYSTEMS LABORATORIES, INC  
 I S L  
 10070 BARNES CANYON RD  
 SAN DIEGO CA 921212722  
 CODE 107928806 FACILITY CODE  
 9A. AMENDMENT OF SOLICITATION NO.  
 9B. DATED (SEE ITEM 11)  
 10A. MODIFICATION OF CONTRACT/ORDER NO.  
 GS23F0060L DR-04-06-071  
 10B. DATED (SEE ITEM 13)  
 07-31-2006

**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 on 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)  
 76015171277 N6310 252A FFS:RESC07-180  
 31x0200.760 Obligate: \$234,961.02 DUNS: 107928806

**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) Bilateral Agreement  
 X

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

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
 The purpose of this modification is to 1) increase the obligated amount by \$234,961.02 from \$450,000.00 to \$684,961.00 2) increase contract ceiling by \$101,104.02 from \$583,857.00 to \$684,961.02. 3) modify the statement of work work 4) extend the period of performance.  
 See pages 2-5 for details.  
 Total Obligated Amount: \$684,961.02 (changed)  
 Total Ceiling Amount: \$684,961.02 (changed)  
 Period of Performance: July 31, 2006 to December 30, 2007. (changed)

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, Senior V.P.  
 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Stephen M Pool Contracting Officer  
 15B. CONTRACTOR/OFFEROR  
 15C. DATE SIGNED 6/15/07  
 16B. UNITED STATES OF AMERICA BY Stephen M Pool (Signature of Contracting Officer)  
 16C. DATE SIGNED 6/15/07

The purpose of this modification is to 1) increase the obligated amount by \$234,961.02 from \$450,000.00 to \$684,961.02. 2) increase contract ceiling by \$101,104.02 from \$583,857.00 to \$684,961.02. 3) modify the statement of work 4) extend the period of performance. Accordingly the contract is modified as follows:

- 1) The total estimated amount of this contract (ceiling) for the products/services ordered, delivered, and accepted under this contract is \$684,961.02. The amount presently obligated with respect to this contract is \$684,961.02. This contract is fully funded.
- 2) Section A.3 entitled "Schedule" Exhibit A :Tasks 5, 11 and 12 is modified as follows:

Task 5

Labor Category	Rate	Previous hours	Increased in level of effort	Revised amount of hours	Previous total dollar amount	Increased dollar amount	Total dollar amount for Task 2
Senior Executive 2							\$6,229.14
Sr. Engineer							\$32,979.20
Principal Scientist 2							\$7,881.18
<b>Subtotal</b>							<b>\$47,089.52</b>
Other direct costs (travel)							\$600.00
<b>Total</b>							<b>\$47,689.52</b>

Task 11

Labor Category	Rate	Previous hours	Increased in level of effort	Revised amount of hours	Previous total dollar amount	Increased dollar amount	Total dollar amount for Task 2
Senior Executive							\$6,994.80
Senior Executive 2							\$14,656.80
Research Engineer							\$12,906.00
Principal Scientist 2							\$3,426.60
<b>Subtotal</b>							<b>\$37,984.20</b>
Other direct costs (travel)							\$0.00
<b>Total</b>							<b>\$37,984.20</b>

Task 12

Labor Category	Rate	Previous hours	Increased in level of effort	Revised amount of hours	Previous total dollar amount	Increased dollar amount	Total dollar amount for Task 2
Senior Executive 2							\$14,656.80
Principal Engineer							\$16,040.40
Principal Scientist 2							\$27,412.80
<b>Subtotal</b>							<b>\$58,110.00</b>
Other direct costs (travel)							\$0.00
<b>Total</b>							<b>\$58,110.00</b>

3) The following modifications are made to Section B. of the contract entitled "Statement of Work":

- a. Section III. Scope of Work, Task 4 entitled: "Review Results of TRACE Assessment for Separate-Effects Tests and Component Test", is modified as follows:

Estimated completion date: 12 months after contract initiation

- b. Section III. Scope of Work, Task 5, entitled: "Support the Development of an Independent Scaling Analysis for Integral LOCA Test Facilities" is deleted in its entirety and modified as follows:

Support the NRC staff to develop an independent scaling analysis for the PUMA, PUMA-E, PANDA, and GIRAFFE test facilities. Assist in compilation of design parameters for one or more of these test facilities under the direction of the NRC Project Manager.

Estimated completion date: 14 months after contract initiation

- c. Section III. Scope of Work, Task 6, entitled: "Review TRACE Assessment for Integral LOCA Test" is modified as follows:

Estimated completion date: 12 months after contract initiation

- d. Section III. Scope of Work, Task 8, entitled: "Prepare a draft TRACE Applicability Evaluation Report for ESWR LOCAs" is modified as follows:

Estimated completion date: 12 months after contract initiation

- e. Section III. Scope of Work, Task 9, entitled: "Coordinate Support and Peer Review of the Draft Report" is modified as follows:

Estimated completion date: 13.5 months after contract initiation

- f. Section III. Scope of Work, Task 10, entitled: "Complete TRACE Applicability Evaluation Report for ESBWR LOCAs" is modified as follows:

Estimated completion date: 15 months after contract initiation

- g. Section III. Scope of Work, Task 11, entitled: "Provide Technical Support to NRC" is modified as follows:

Estimated level of efforts: 260 labor-hours

Estimated completion date: throughout the period of performance of this contract

- h. Section III. Scope of Work, Task 12, entitled: "Conduct TRACE Assessments to Address Identified Deficiencies in the Developmental Assessment Base for Advanced BWRs (e.g., ESBWR, SBWR, ABWR, etc.)" is incorporated:

Assess the latest version of TRACE against data from two containment pressurization separate effects test facilities. Assume three tests in each of the two facilities and that NRC will provide the necessary data on the facility designs and experimental results. The contractor shall build the input decks, review them for accuracy, document the models in a calculation notebook, perform the transient calculations for each test, compare the calculated and measured results (pressures, temperatures, pool levels, etc.) and document the comparisons in a letter report.

Estimated completion date: 13.5 months after contract initiation

i. Section III. Scope of Work, the following sub section is incorporated:

#### RESEARCH QUALITY

The quality of NRC research programs are assessed each year by the Advisory Committee on Reactor Safeguards. Within the context of their reviews of RES programs, the definition of quality research is based upon several major characteristics:

- Results meet the objectives (75% of overall score)
  - Justification of major assumptions (12%)
  - Soundness of technical approach and results (52%)
  - Uncertainties and sensitivities addressed (11%)
- Documentation of research results and methods is adequate (25% of overall score)
  - Clarity of presentation (16%)
  - Identification of major assumptions (9%)

It is the responsibility of the contractor to ensure that these quality criteria are adequately addressed throughout the course of the research that is performed. The NRC project manager and technical monitor will review all research products with these criteria in mind.

j. Section V, entitled: "Deliverables and Delivery Schedule" is deleted in its entirety and replaced with the following:

All deliverables are in electronic format and in hard copy.

- Task 1: a letter report within 1 months after contract initiation
- Task 2: a letter report within 3 months after contract initiation
- Task 3: a letter report within 4 months after contract initiation
- Task 4: a letter report within 12 months after contract initiation
- Task 5: a letter report within 14 months after contract initiation
- Task 6: a letter report within 12 months after contract initiation
- Task 7: a letter report within 8.5 months after contract initiation
- Task 8: a letter report within 12 months after contract initiation
- Task 9: a letter report within 13.5 months after contract initiation

Task 10: a letter report within 15 months after contract initiation  
Task 12: a letter report within 13.5 months after contract initiation

k. Section VIII, entitled: "Period of Performance" is deleted in its entirety and replaced with the following:

The period of performance of this contract is from July 31, 2006 through December 30, 2007.

**All other terms and conditions remain unchanged.**

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

Total FY 06 obligation amount:	\$400,000.00
Total FY 07 obligation amount:	<u>\$284,961.02</u>
Cumulative Total of NRC Obligations	\$684,961.02

This modification obligates FY07 funds in the amount of \$ 234,961.02.