

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

BPA NO.

1. CONTRACT ID CODE

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2. AMENDMENT/MODIFICATION NO. M004	3. EFFECTIVE DATE See Block 15c	4. REQUISITION/PURCHASE REQ. NO. RPPA: RES-07-085 FFS: RES-C09-603	5. PROJECT NO. (if applicable)
6. ISSUED BY U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Sheila Bumpass, 301-492-3484 Mail Stop TWB-01-B10M Rockville MD 20852	CODE 3100	7. ADMINISTERED BY (If other than Item 6) U.S. Nuclear Regulatory Commission Div. of Contracts Mail Stop TWB-01-B10M Rockville MD 20852	CODE 3100

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

INFORMATION SYSTEMS LABORATORIES, INC
ATTN: DR. JAMES F. MEYER
11140 ROCKVILLE PIKE, SUITE 500
ROCKVILLE MD 20852

(X)

9A. AMENDMENT OF SOLICITATION NO.:

9B. DATED (SEE ITEM 11)

10A. MODIFICATION OF CONTRACT/ORDER NO.
GS23F0060L NRC-DR-04-07-08510B. DATED (SEE ITEM 13)
10-31-2007

CODE

FACILITY CODE

X

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)

B&R: 96015171103 JC: N6387 BOC: 252A Appr No: 31X0200.960 DUNS: 107928806 Amount Obligated: \$377,815.00

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.
X	Changes Clause: 52.243-3 Changes (Time and Materials/Labor Hour)
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, 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)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 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. Provide incremental funding; and
2. Codify scope of work changes to Task 1, Task 2, Task 2.1, and Task 2.2 at no additional cost.

Specific changes are reflected on the following pages

All other terms and conditions remain the same.

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) Bruce B. Mrowca V.P.	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Stephen M. Pool Contracting Officer
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED 12/3/08
15D. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 12/4/08

NSN 7540-01-152-8070
PREVIOUS EDITION NOT USABLESTANDARD FORM 30 (REV. 10-83)
Prescribed by GSA - FAR (48 CFR) 53.243

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE

DEC 1-1 2008

ADM002

The purpose of this modification is to:

1. Fully fund this task order by providing incremental funding as follows:
Obligated Amount: \$377,815.00; RFP: RES-07-085/FFS: RES-C09-603; B& R Number: 96015171103; Job Code: N6387; BOC: 252A; Appropriation Number: 31X0200.960

Funding Changes as a result of this modification:

Task Order Ceiling Total:	\$977,815.00
Previous Obligated Amount:	\$600,000.00
Obligation Amount per this Mod:	\$377,815.00

Revised Obligated Total/Ceiling:	\$977,815.00
Amount Available for Obligation:	\$0.0

2. In the Statement of Work, delete Task 1, Task 2, Task 2.1, and Task 2.2 in "Section III. Scope of Work", and replace with the following:

III. SCOPE OF WORK

Task 1. The contractor shall complete and quality assure the AP1000 Input Deck for TRACE based on existing RELAP5/MOD3 and TRACE input decks and perform the following plant transient analyses:

1. 5 LBLOCAs:

- a. Double-ended guillotine break (DEGB) in cold leg (CL) with CD (discharge coef.) = 0.8, 1.0, and 1.2
- b. Split break in cold leg with CD = 1.0
- c. CL DEGB with IRWST (In-containment Refueling Water Storage Tank) temperature high

2. 1 MSLB (main steam line break)

3. 1 SGTR (steam generator tube rupture)

4. 3 SBLOCAs with design basis assumptions:

- a. DE DVI (direct vessel injection) line break with failure of one ADS4 valve in non-pressurizer loop
- b. DE DVI line break with failure of one ADS4 valve in pressurizer loop
- c. 2-inch CL break with failure of one ADS4 valve in non-pressurizer loop

Estimated Level of Effort: 9 staff months

Task 2. The contractor shall perform TRACE assessments necessary to qualify the code for AP1000. Documentation for the assessments shall be provided as described in Section IV of this statement of work.

Task 2.1 Starting with the RELAP5 input deck, calculation notebook, and the preliminary TRACE input deck, for each of the seven APEX-AP1000 tests listed below, the contractor shall perform an assessment calculation and analysis with TRACE.

1. NRC-AP1000-1 Double ended guillotine break of direct vessel injection (DVI)-1 with failure of ADS1-3
2. NRC-AP1000-3 Double ended guillotine break of DVI-1 with failure of 2/4 ADS4 valves in the pressurizer loop
3. NRC-AP1000-4 One inch break at the bottom of cold leg 4 with degraded sump
4. NRC-AP1000-5 Double ended guillotine break of DVI-1 with failure of 2/4 ADS4 valves in non-pressurizer loop
5. NRC-AP1000-6 Two inch break at bottom of cold leg 4 with failure of 2/4 ADS4 valves on non-pressurizer loop
6. NRC-AP1000-11 No reserve test, initial pressure = 100 psia, containment backpressure = 25 psia, core power = 1 MW
7. NRC-AP1000-8 Station blackout, fail 50% ADS1-4

The contractor shall also perform the following counterpart AP1000 plant calculations/analyses with TRACE.

1. DE DVI line break with failure of ADS stages 1-3 (NRC-AP1000-1)
2. DE DVI line break with failure of two ADS4 valves in pressurizer loop (NRC-AP1000-3)
3. DE DVI line break with failure of two ADS4 valves in non-pressurizer loop (NRC-AP1000-5)
4. 2-inch CL break with failure of two ADS4 valves in non-pressurizer loop (NRC- AP1000-6)

Estimated level of effort: 4.5 staff months

Task 2.2 Starting with the RELAP5 input deck, calculation notebook, and the preliminary TRACE input deck for ROSA-IV, for each of the five ROSA AP600 tests listed below, the contractor shall perform an assessment calculation and analysis with TRACE.

1. AP-CL-03: 1-inch cold leg break
2. AP-DVI-1: Double ended guillotine break of DVI-1
3. AP-BO-01: Station blackout
4. AP-CL-05: 1-inch cold leg break with failure of ADS 1-3
5. AP-CL-09: 1-inch cold leg break with makeup pump, no core makeup tanks (CMTs), 1 accumulator, 50% ADS1-4, 1 in-containment refueling water storage tank line.

The contractor shall also perform the following counterpart AP1000 plant calculation/analysis with TRACE.

1. Station Blackout (ROSA/AP600 Test AP-BO-01)

Estimated level of effort: 2.5 staff months

All other terms and conditions remain the same