

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		BPA NO.	1. CONTRACT ID CODE	PAGE 1 OF 2
2. AMENDMENT/MODIFICATION NO. 0004	3. EFFECTIVE DATE See Block 15c.	4. REQUISITION/PURCHASE REQ. NO. NRC-42-07-036 T78M4	5. PROJECT NO. (if applicable)	
6. ISSUED BY U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Jeffrey R. Mitchell, 301-492-3639 Mail Stop T-7-I-2 Washington, DC 20555	CODE 3100	7. ADMINISTERED BY (if other than item 6) U.S. Nuclear Regulatory Commission Div. of Contracts Mail Stop T-7-I-2 Washington, DC 20555	CODE 3100	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  INFORMATION SYSTEMS LABORATORIES, INC ISL ATTN: DR. JAMES F. MEYER  11140 ROCKVILLE PIKE, SUITE 500  ROCKVILLE MD 20852		9. AMENDMENT OF SOLICITATION NO.	10. DATED (SEE ITEM 11)	
		10A. MODIFICATION OF CONTRACT/ORDER NO. NRC-42-07-036 0078	10B. DATED (SEE ITEM 13) 08-26-2009	
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) 025-15-171-103 Q4160 252A 31x0200.025  
Obligate: \$75,000.00

### 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).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: <b>Bilateral Mutual Agreement of the Parties</b>
	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.)

.....REFER TO ATTACHED PAGE TWO FOR A DESCRIPTION OF MODIFICATION NO. FOUR.....

Except as provided herein, all terms and conditions of the document referenced in item 8A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) <b>Bruce R. Maruca V.P.</b>	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <b>Jeffrey R. Mitchell Contracting Officer</b>
15B. CONTRACTOR/ORDEROR <i>(Signature of person authorized to sign)</i>	15C. DATE SIGNED <b>6/2/2010</b>
16B. UNITED STATES OF AMERICA <i>(Signature of Contracting Officer)</i>	16C. DATE SIGNED <b>6/2/2010</b>

NSN 7540-01-152-8070  
PREVIOUS EDITION NOT USABLE

STANDARD FORM 60 (REV. 10-83)  
Prescribed by GSA - FAR (48 CFR) 53.243

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE

JUN 04 2010

ADM001

The purpose of this modification is to (1) confirm the verbal authorization given on May 28, 2010 (2) increase the level of effort, thus resulting in an increase to the contract ceiling by \$165,385.00 from \$186,132.00 to \$351,517.00 and (3) provide incremental funding in the amount of \$75,000.00 thereby increasing the total obligations from \$186,132.00 to \$261,132.00. Accordingly, the subject task order is modified as follows:

Refer to the Task Order No. 78 "Statement of Work" is hereby deleted in its entirety and replaced with the following Statement of Work attached to this Modification No.4 entitled "Statement of Work Rev 2".

Task Order No. 78 shall be in effect from August 26, 2009 through December 31, 2010, with a cost ceiling of \$351,517.00. The amount of \$335,370.00 represents the estimated reimbursable costs, and the amount of \$16,147.00 represents the fixed fee.

The amount obligated by the Government with respect to this task order is \$261,132.00, of which \$249,137.00 represents the estimated reimbursable costs, and the amount of \$11,995.00 represents the fixed fee.

**\*\*\*\*ALL OTHER TERMS AND CONDITIONS OF THE SUBJECT TASK ORDER REMAIN UNCHANGED\*\*\***

## MODIFICATION

## TASK ORDER STATEMENT OF WORK

## REVISION NO. 2

JCN Q-4160	Contractor Information Systems Laboratories (ISL)	Task Order No. NRC-42-07-036 TO78 Mod 4
Applicant Westinghouse Electric Co.	Design/Site AP1000/NA	Docket No. 5200006
Title/Description  Technical Assistance for the Review of AP 1000 Shield Building Related to Concrete Filled Steel Plates Modules		
TAC No. RX0700	B&R Number 025-15-171-103	SRP or ESRP Section(s) 3.8.4
NRC Task Order Project Officer (PO) Min Lee                      301-415-0502                      Min.Lee@nrc.gov		
NRC Technical Monitor (TM) John Ma                      301-415-2732                      John.Ma@nrc.gov		

## 1.0 BACKGROUND

**The US Nuclear Regulatory Commission (NRC) has a need to obtain technical assistance for the review of tests to be performed for concrete filled steel panels that will be used at a nuclear power plant. The scope of work for providing this technical assistance is given below.**

## 2.0 OBJECTIVE

The contractor shall provide technical assistance to the NRC in the review of the AP1000 shield building, including test plans and test results of concrete filled steel panels (SC wall modules) and anchorages that will be used at US nuclear power plants. The contractor shall be very experienced in the testing of concrete panels subjected to various loadings. The contractor shall perform the tasks identified in Section 3.0.

**In addition, the objective of this modified task order will be satisfied by ISL's assistance with the following:**

- **Provide technical assistance for the review of Westinghouse resubmittal of the AP1000 structural design, including shield building design and its critical sections and to update the TER accordingly.**
- **Support the staff's review of the AP1000 design report anticipated in February 2010.**
- **Assist the staff in preparing the SER for the AP1000 DCD.**

### 3.0 WORK REQUIREMENTS, SCHEDULE AND DELIVERABLES

Tasks/Standards	Scheduled Completion	Deliverables
<p>1. <b>REQUIREMENT:</b> Meet with the NRC staff representative to discuss the test plan that is being proposed by an applicant for the design certification of an advanced reactor. This meeting will occur at the contractor's office. During this meeting, the contractor shall review the Westinghouse test plan and provide comments and recommendations to ensure that the test plan is technically acceptable. It is envisioned that the tests would subject the test panels to in-plane shear and membrane forces in both meridional and hoop directions, simulating the cylindrical shield building wall which will be subjected to earthquake loadings. The test plan also includes out-of-plane shear, and anchorages. The review of the test plan would include ensuring that the test specimens selected, type of testing, number of tests, test fixture, monitoring of test parameters, etc, are adequate to obtain sufficient data which would be used to confirm the design approach being used for these panels.</p> <p><b>STANDARD:</b> Participate in a two day meeting for two people at the contractor's facility</p>	<p>* Two weeks after authorization of work</p>	<p><b>Completed</b></p>
<p>2. <b>REQUIREMENT:</b> Participate in telephone conference calls with the NRC and the applicant to discuss details of the test plan and to discuss the test results.</p> <p><b>STANDARD:</b> Participate in 5 conference calls for approximately 1-1/2 hours each for one person.</p>	<p>*Four (4) months after authorization of work</p>	<p><b>Completed</b></p>
<p>3. <b>REQUIREMENT:</b> Participate in public meetings and audits with the NRC staff where discussions will be held regarding the testing and evaluation of the results.</p> <p><b>STANDARD:</b> Attend 5 one-day public meetings</p>	<p>*Three (3) months after completion of applicant's tests</p>	<p>N/A</p>

Tasks/Standards	Scheduled Completion	Deliverables
for one person at the NRC headquarters.		
<p>4. <b>REQUIREMENT:</b> Review the applicant's test report including the test data for adequacy and will prepare a technical evaluation report (TER) summarizing the results of the contractor's review. In addition:</p> <ul style="list-style-type: none"> <li>• <b>Provide technical assistance for the review of Westinghouse resubmittal of the analysis of the containment building, including the design of shield building and its critical sections</b></li> <li>• <b>Update the TER accordingly.</b></li> </ul> <p><b>STANDARD:</b> Submission of TER</p>	Four (4) weeks after receipt of test report	Technical evaluation report (TER)
<p>5. <b>REQUIREMENT:</b> Respond to staff technical questions relating to the shield building design.</p> <p><b>STANDARD:</b> On a bi-weekly basis, participate in brief (~1 hour duration) telephone conversations with the staff to discuss specific shield building topics.</p>	*Twelve (12) months after authorization of work	N/A

\* These Work Schedules are subject to change by the NRC Contracting Officer (CO) to support the needs of the NRC Licensing Program Plan.

The Technical Monitor may issue technical instruction from time to time throughout the duration of this task order. Technical instructions must be within the general statement of work delineated in the task order and shall not constitute new assignments of work or changes of such a nature as to justify an adjustment in cost or period of performance. The contractor shall refer to Section G.1 of the base contract for further information and guidance on any technical directions issued under this task order.

Any modifications to the scope of work, cost or period of performance of this task order must be issued by the CO and will be coordinated with the NRO Project Officer.

#### **4.0 TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED**

As specified in the base contract, the contractor shall provide individuals who have the required

educational background and work experience to meet the objectives of the work specified in this task order. Specific qualifications for this effort include:

Knowledge and experience in testing of concrete panels subjected to various loadings.

The contractor shall provide a contractor project manager (PM) to oversee the effort and ensure the timely submittal of quality deliverables so that all information is accurate and complete as defined in the base contract.

The NRC will rely on representations made by the contractor concerning the qualifications of the personnel assigned to this task order, including assurance that all information contained in the technical and cost proposals, including resumes, is accurate and truthful. The resume for each professional proposed to work under this task order (contractor, subcontractor, or consultant) shall describe the individual's experience in applying his or her area of engineering specialization to work in the proposed area. The use of particular personnel on this contract is subject to the NRC technical monitor's (TM's) approval. This includes any proposed changes to key personnel during the life of the task order.

## **5.0 REPORTING REQUIREMENTS**

### **Task Order Progress Report**

The contractor shall provide a bi-weekly progress report summarizing accomplishments, expenditures, contractor staff hours expended, percent completed for each task under this task order, and any problems encountered by the contractor. The report shall be sent via e-mail to the NRC TM, Task Order Project Officer (PO) and CO.

Please refer to Section F of the basic contract award document for contract reporting requirements.

### **Technical reporting requirements**

Unless otherwise specified above, the contractor shall provide all deliverables as draft products. The NRC TM will review all draft deliverables (and coordinate any internal NRC staff review, if needed) and provide comments back to the contractor. The contractor shall revise the draft deliverable based on the comments provided by the TM, and then deliver the final version of the deliverable. When mutually agreed upon between the contractor and the TM, the contractor may submit preliminary or partial drafts to help gauge the contractor's understanding of the particular work requirement.

The contractor shall provide the following deliverables in hard copy and electronic formats. The electronic format shall be provided in MS Word or other word processing software approved by the TM. For each deliverable, the contractor shall provide one hard copy and electronic copy to both the PM and the TM. The schedule for deliverables shall be contained in the approved project plan for the task order effort.

In all correspondence, include identifying information: JCN No.: Q4160; Technical Assignment Control No. (TAC), RX0700; Task Order No.: 78; the licensee: Westinghouse Electric Co.; and, the site: N/A.

## **6.0 MEETINGS AND TRAVEL**

Kick-off meeting to be conducted via telephone.

- Five One 1-person, 2-day working meeting at NRC headquarters to participate in public meetings.
- Two, two person, five-day trips to the applicant's facility to implement a DCD review team audit

\*At the discretion of the NRC TM, meeting may be conducted via telephone or video conference.

## **7.0 NRC FURNISHED MATERIAL**

The following NRC furnished materials will be provided to the contractor together with SOW:

- a. CD-ROM containing relevant model input data

## **9.0 PERIOD OF PERFORMANCE**

The period of performance is from August 26, 2009 through December 31, 2010.

## **10.0. OTHER APPLICABLE INFORMATION**

- a. License Fee Recovery

All work under this task order is fee recoverable and must be charged to the appropriate TAC number(s).

- b. Assumptions and Understandings:

It is assumed that the contractor has access to the NRC furnished material available on the Internet.

It is understood that the scope of the review consists of conference calls with the NRC staff, and with the NRC staff and the applicant, to discuss open items in an attempt to obtain additional information or reach resolution.

During the course of the review, the Technical Monitor, and possibly other NRC personnel, may travel to the contractor site to discuss the status of the review and participate in the resolution of open items. It is assumed that the level of effort covers such a meeting.

The primary deliverable, or output of this regulatory review, shall be the Technical Evaluation Report (TER). The TER will serve as input to the NRC staff's Safety Evaluation Report (SER) which will document the NRC's technical, safety, and legal basis for approving the COL application. The TER must provide sufficient information to adequately explain the NRC staff's rationale for why there is *reasonable assurance* that public health and safety is protected.