

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

BPA NO.

1. CONTRACT ID CODE

PAGE

OF PAGE

1

3

2. AMENDMENT/MODIFICATION NO. M001

3. EFFECTIVE DATE

4. REQUISITION/PURCHASE REQ. NO. RES-08-005

5. PROJECT NO.(If applicable)

6. ISSUED BY CODE 3100

7. ADMINISTERED BY (If other than Item 6) CODE 3100

U.S. Nuclear Regulatory Commission
Div. of Contracts
Attn: Adelis M Rodriguez, 301-492-3623
Mail Stop: TWB-01-B10M
Washington, DC 20555

U.S. Nuclear Regulatory Commission
Div. of Contracts
Mail Stop: TWB-01-B10M
Washington, DC 20555

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

ENERGY RESEARCH INC
6167 EXECUTIVE BLVD
ROCKVILLE MD 208523901

(X) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

10A. MODIFICATION OF CONTRACT/ORDER NO. GS23F0110M NRC-DR-04-08-005

10B. DATED (SEE ITEM 13)

X 06-18-2008

CODE 621211259

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 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.

12. ACCOUNTING AND APPROPRIATION DATA (If required) N/A

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:

X D. OTHER (Specify type of modification and authority) The contractor agreed to the changes on their letter dated August 4, 2008 from Mohsen Khatib-Rahbar to A. Rodriguez.

E. IMPORTANT: Contractor [X] is not, [] is required to sign this document and return 0 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 replace section IV of the Statement of Work with the attachment at no additional cost to the government.

All other terms and conditions remain the same.

Total Order Ceiling: \$273,846.32 (unchanged)

Total Obligated Amount: \$150,000.00 (unchanged)

Period of Performance: 6/18/2008-6/17/2009. (unchanged)

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)

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

Stephen Pool
Contracting Officer

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

BY [Signature] (Signature of Contracting Officer)

8/5/08

MODIFICATION #1 to the STATEMENT OF WORK

TRACE Input Model Development for US-APWR (JOB CODE N6576)

The purpose of this modification is to add interim deliverables. Therefore, replace section IV from the original statement of work with the following.

IV. DELIVERABLES

The Contractor shall be required to comply with the deliverable schedule stated below. For each deliverable the Contractor shall provide one (1) hard copy and one (1) electronic copy to the Project Officer, unless otherwise indicated. Any deliverables rejected by the Project Officer shall be revised and resubmitted within 15 working days of notification from the Project Officer that the deliverable was rejected. This resubmittal timeframe for a rejected deliverable may be extended to 30 working days at the discretion of the Project Officer.

The Contractor shall provide all deliverables and products in the following formats unless the use of another format is mutually agreed upon in advance by the Contractor and the NRC project officer.

- Monthly Technical Progress Reports shall be delivered in Microsoft (MS) Word format
- Presentations shall be delivered in MS PowerPoint
- Project Plans shall be provided in MS Project
- All other deliverables shall be delivered in MS Word

Deliverables and their due dates are summarized below.

Deliverable		Schedule
Kickoff meeting		Within 15 calendar days of contract award (<i>June 30, 2008</i>)
Technical Progress Report		Monthly within 15 calendar days after the end of the report period
1	<ul style="list-style-type: none"> Results of conversion of MHI's MRELAP5 model to TRACE List of data needs from MHI in order to complete the preliminary TRACE model 	August 15, 2008
2	<ul style="list-style-type: none"> Preliminary, annotated TRACE input model developed from MHI's M-RELAP5 model, MHI reports, MHI RAI responses, and AP1000 TRACE input model Draft calculation notebook (primitive version acceptable) which includes descriptions of the origin of all components – whether they came from MHI's M-RELAP5 model, MHI reports or drawings, or the AP1000 TRACE model List of additional data needs from MHI 	September 30, 2008 <i>(Assuming initial RAI responses received by August 15, 2008)</i>
3	<ul style="list-style-type: none"> Draft annotated TRACE input model of US-APWR that includes further efforts to make the TRACE model specific to the US-APWR design Updated draft calculation notebook 	November 30, 2008 <i>(Assuming second round of RAI responses received by October 30, 2008)</i>
4	<ul style="list-style-type: none"> Steady state annotated TRACE input model of US-APWR that includes advanced accumulator modeling which follows guidelines set forth in the separate US-APWR TRACE applicability study, and has been thoroughly tested, and meets QA standards Updated draft calculation notebook 	December 31, 2008 <i>(Assuming no significant delays occur in receipt of MHI responses)</i>
5	<ul style="list-style-type: none"> TRACE input model modified for US-APWR LBLOCA simulation Results of LBLOCA runs 	January 30, 2009 <i>(Assuming no significant delays occur in receipt of MHI responses)</i>
6	<ul style="list-style-type: none"> TRACE input models modified for US-APWR SBLOCA, IBLOCA, and DVI line break accident simulations Results of SBLOCA, IBLOCA, and DVI line break accident runs 	March 30, 2009 <i>(Assuming no significant delays occur in receipt of MHI responses)</i>
7	<ul style="list-style-type: none"> Final annotated US-APWR TRACE steady state and accident input models which follow all modeling guidelines set forth in the separate USAPWR TRACE applicability study Final calculation notebook 	June 19, 2009 <i>(End of Contract Period of Performance)</i>