

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT CODE PAGE OF PAGES 1 4

2. AMENDMENT/MODIFICATION NO. 21 3. EFFECTIVE DATE 4/22/94 4. REQUISITION/PURCHASE REQ. NO. NRC-04-90-069 dated 4/21/94 5. PROJECT NO. (if applicable) 7. ADMINISTERED BY (if other than Item 6) CODE

6. ISSUED BY CODE U.S. Nuclear Regulatory Commission Division of Contracts & Property Management, P-902 Washington, DC 20555

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) Battelle Memorial Institute 505 King Avenue Columbus Ohio 43201-2693 Principal Investigator/Technical Contact: Gery Wilkowski Telephone No. (61) 424-4680

9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. X NRC-04-90-069 10B. DATED (SEE ITEM 11) 3/23/90

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 number. 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) N/A

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

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 data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(h). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority) X 52-243-2 "Changes"

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 DCF section headlines, including solicitation/contract subject matter where feasible.)

(See the following pages.)

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Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as hereafter changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) STEPHEN H. KRZYKOSKI CONTRACTING OFFICER 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED MAY 31 1994 15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Joyce A. Fields 15B. UNITED STATES OF AMERICA BY Joyce A. Fields (Signature of Contracting Officer) 15C. DATE SIGNED 5/27/94

The purpose of this Modification No. 21 is to reduce the level of effort under the contract by deleting tasks as described herein. This revision to the contract statement of work and adjustment in costs associated therewith are necessitated by the projected cost overrun presented in Battelle's January 6, 1994, March 11, 1994 and April 21, 1994 letters to the NRC.

Therefore, the following changes to the contract are hereby outlined as follows:

1. Section C.1 STATEMENT OF WORK is revised by deleting all work incorporated into the contract scope under Modification No. 10, with the exception of conducting the two tensile tests on the safe-end stainless steel base metal and perform metallographic sections on the fractures from the pipe and the C(T) tests, described in Battelle's January 6, 1994 letter.
2. Section C.1 STATEMENT OF WORK is revised by deleting the following Subtasks as described in Table 4 Suggested Deletions, under Battelle's January 6, 1994 letter:

- Subtask 2405 "Improve Weld Analysis
(for Surface Crack J-estimation scheme)"
- Subtask 4301 "Pipe Predictions
(of DSA crack jumps)"
- Subtask 5103 "FEM Growing Crack
(for belical crack growth in Anisotropy Task)"
- Subtask 5104 "Principle Stresses
(for belical crack growth in Anisotropy Task)"
- Subtask 5105 "Appropriate Correction
(for belical crack growth in Anisotropy Task)"
- Subtask 5106 "Assess Optional Subtasks
(for belical crack growth in Anisotropy Task)"

3. Section C.1 STATEMENT OF WORK is revised by incorporating the following Subtasks as described in Table 5 Program Extension, under Battelle's January 6, 1994 letter:

- Subtask 9203 "Program Management"
- Subtask 9301 "Monthly Reports"
- Subtask 9701 "Experimental Management"
- Subtask 9702 "Analytical Management"

4. As a result of the above changes, the total contract ceiling is adjusted as in accordance with the following breakdown, outlined in Battelle's letter of March 11 and April 21, 1994 and 5/27/94 telephone discussions held between Mr. Steve Krzykoski (Battelle) and Joyce Fields (NRC):

Projected Overrun	-\$338,935.63
Funds on Hold and Available for the Performance of efforts incorporated into the Contract Scope of Work under Modification No. 10	+\$197,756.00
Costs Associated with the deleted Subtasks - <u>Suggested Deletions</u>	+\$221,090.08
Costs Associated with the added Subtasks - <u>Program Extension</u>	-\$ 61,012.00
Net Amount (excess funds available and the amount for which the contract ceiling amount is reduced by under this Modification No. 21)	+\$ 18,898.45

Therefore, Section B.3. CONSIDERATION AND OBLIGATION -- COST PLUS FIXED FEE, paragraphs a., c. and d. are revised to read as follows:

- "a. The total estimated cost to the Government for full performance of this contract is \$4,469,931.55, of which the sum of \$4,104,692.05 represents the estimated reimbursable costs, and of which \$365,239.50 represents the fixed fee."
- c. The amount presently obligated by the Government with respect to this contract is \$4,488,830.00, of which the sum of \$4,122,046.00 represents the estimated reimbursable costs, and of which \$366,784.00 represents the fixed fee."

NOTE: The net monetary change resulting from the revisions outlined under this modification is \$18,898.45. The total funds presently obligated under this contract in the amount of \$4,488,830.00 is inclusive of the \$18,898.45. The \$18,898.45 shall not be used in performance of the required contract work, without the contractor's receipt of written authorization from the NRC Contracting Officer.

"d. It is estimated that the amount currently allotted will cover performance through August 31, 1994."

All other terms and conditions of this contract remain unchanged.

A summary of obligations under this contract from date of the award through the effective date of this modification is as follows:

Total FY 90 obligations:	\$	962,000.00
Total FY 91 obligations:		677,000.00
Total FY 92 obligations:		967,000.00
Total FY 93 obligations:		1,599,000.00
Total FY 94 obligations:		<u>283,000.00</u>

Cumulative NRC obligations: \$ 4,488,830.00

This modification does not obligate any FY 94 monies.