

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1 CONTRACT ID CODE 5001R028/044 PAGE 1 OF PAGE 4

2 AMENDMENT/MODIFICATION NO 147 3 EFFECTIVE DATE 12/23/2000 4 REQUISITION/PURCHASE REQ NO NMS-97-009 12/20, 22 5 PROJECT NO (if applicable)

6 ISSUED BY U.S. Nuclear Regulatory Commission Division of Contracts and Property Mgt Attn: T-7-1-2 Contract Management Branch 2 Washington DC 20555 7 ADMINISTERED BY (if other than item 6) CODE

8 NAME AND ADDRESS OF CONTRACTOR (Type or print) Southwest Research Institute 6220 Culebra Road Post Office Drawer 28510 San Antonio, Texas 78228-0510 Wesley C. Patrick, President, CNWRA (X) 9A AMENDMENT OF SOLICITATION NO 9B DATED (SEE ITEM 11) 10A MODIFICATION OF CONTRACT/ORDER NO Con# NRC-02-97-009

10B DATED (SEE ITEM 13) X 10-15-1987

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 of 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 (Type or print) See Below

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 48.103(a)

C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF

D OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor X is not is required to sign this document and return copies to the issuing office.

14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

Blk 12 Obligate \$146,000 B&R 15015308105 JC J5226 BOC: 252A Approp 31X0200 Obligate \$878 B&R 15015303105 JC J5186 BOC: 252A Approp 31X0200

Please see attached pages

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A as heretofore changed, remain unchanged and in full force and effect

15A NAME AND TITLE OF SIGNER (Type or print)

15B CONTRACTOR/OFFEROR

(Signature of person authorized to sign)

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

Barbara D. Meehan

16B UNITED STATES OF AMERICA

BY

(Signature of Contracting Officer)

(Signature of Contracting Officer)

16C DATE SIGNED

12-23-2000

The purpose of this modification is to obligate \$146,000 to Job Code J5226, to obligate \$878 to Job Code J5186, to increase the authorizations for HLW, TWRS, PFS, and Naval Spent Fuel (note that these increases are inclusive of the amounts increased by letter dated 9/29/00 and e-mails dated 11/28/00 and 12/22/00. Also, please note that the increase to the Naval Spent Fuel authorization is less than the amount previously authorized in the 9/29/00 letter), to add a Project Officer for the Physical Security task under PFS, and to insert the award fee pool and award fee earned for period 19. Accordingly, the following revisions are made:

Sections B.2.C.b and d are revised to show the obligation of \$146,000 to Job Code J5226 and an obligation of \$878 to Job Code J5186 as indicated on the attached change pages 5 and 6.

Section B.2.C.e is revised to show an increase in the authorization of Job Code D1035 (Repository Program) of \$4,930,371 to a total of \$43,0000, an increase of \$8,351.71 to a total of \$2,533,830 for TWRS Job Code J5164, an increase of \$877.69 to a total of \$313,726.69 for TMI2 Job Code J5186, an decrease of \$7,401 to a total of \$565,600 for DTS Job Code J5206 (reflecting the deobligation which occurred in modification no. 146), an increase of \$387,445 to a total of \$1,330,550 for PFS Job Code J5226, and an increase of \$24,522 to a total of \$139,991 for Naval Spent Fuel Job Code J5327 as shown on the attached change page 7.

Section B.2.C.f is revised to show the award fee pool and award fee earned for evaluation period 19 as shown on attached change page 7

Section G.3.1.C is revised to add a project officer, Mahendra Shah, to PFS for the new physical security task as shown on the attached change page 29.

Attachment 11, Award Fee Determination Plan, is revised to change page 9 to reflect the award fee pool for evaluation period 19, as shown on the attached change page.

All other terms and conditions of this contract, including the ceiling amount for the second renewal period of \$87,611,477.00, remain the same.

A summary of new obligations for the second renewal period of this contract is given below:

Job Code D1035 (HLW)

Total FY97 obligation amount \$445,000 (see Spent Fuel (CIS) below)

Total FY98 obligation amount \$10,792,270 (Note that this reflects the \$19,000 which was obligated on Mod. 123, but not reflected in this summary)

Total FY99 obligation amount \$11,862,000.

Total FY99 deobligation amount \$183,756.57.

Total FY00 obligation amount \$12,971,071.

Total FY00 deobligation amount of \$100,000.

Total FY01 obligation amount of \$13,415,000

Cumulative Total of NRC Obligations for JC 1035 (HLW) \$49,201,584.43.

Description of Changes Incorporated by Modification No. 147 to NRC-02-97-009

Page 3

Job Code D1035 (Spent Fuel (CIS))  
Total FY97 obligation amount \$200,000  
Total FY98 obligation amount \$250,000

Job Code J5297 (Spent Fuel (CIS))  
Total FY00 obligation amount \$100,000

Cumulative Total of NRC Obligations for CIS \$550,000.

Job Code J5164 (Tank Waste Remediation)

Total FY98 obligation amount \$250,000  
Total FY99 obligation amount \$285,000  
Total FY00 obligation amount \$840,000

Cumulative Total of NRC Obligations for JC J5164 \$1,375,000.

Job Code J5206 (Spent Fuel Dry Transfer)  
Total FY97 obligation amount \$25,000.  
Total FY98 obligation amount \$200,000.  
Total FY98 deobligation amount \$33,000  
Total FY99 obligation amount \$283,600  
Total FY00 obligation amount \$135,000  
Total FY01 deobligation amount \$45,000

Cumulative Total of NRC Obligations for JC J5206 \$565,600.

Job Code J5210 (Aluminum-Based Spent Fuels)  
Total FY98 obligation amount \$125,000.

Cumulative Total of NRC Obligations for JC J5210 \$125,000

Job Code J5186 (TMI-2 Fuel Debris)

Total FY98 obligation amount \$208,000.  
Total FY98 deobligation amount \$8,000.  
Total FY99 obligation amount \$100,000  
Total FY99 deobligation amount \$15,898.  
Total FY01 obligation amount \$878.

Cumulative Total of NRC Obligations for JC J5186 \$284,980.

Description of Changes Incorporated by Modification No. 147 to NRC-02-97-009

Page 4

Job Code J5226 (Private Fuel Storage)  
Total FY98 obligation amount \$158,000  
Total FY99 obligation amount \$332,630  
Total FY00 obligation amount \$443,920  
Total FY01 obligation amount \$396,000

Cumulative Total of NRC Obligations for JC J5226 \$1,330,550.

Job Code J5324 (SKB Peer Review)  
Total FY00 obligation amount \$9,987

Cumulative Total of NRC Obligations for JC J5324 \$9,987.

Job Code J5327 (Naval Spent Fuel)  
Total FY00 obligation amount \$161,000

Cumulative Total of NRC Obligations for JC J5327 \$161,000.

This modification obligates \$146,878 in FY2001 funds.

e. Total amount authorized by Operations/Project Plans was as follows:

High-Level Waste Job Code: D1035 Amount: \$ 44,662,918	Licensing Support System Job Code: L1590 Amount: \$35,900
Research Job Code: B6666 Amount: \$ 15,584,461.47	Waste Solidification Systems Job Code: L1793 Amount: \$642,391.87 Job Code: J5190 Amount: \$39,900
Transportation Job Code: D1070 Amount: \$0	Monitored Retrievable Storage Job Code: L2516 Amount: \$20,459.70
Tank Waste Remediation Job Code: J5164 Amount: \$772,035.00	Safety Review of TMI-2 Job Code: J5186 Amount: \$158,290

Total amount authorized: \$ 61,916,356.04

f. The total award fee available, the award fee earned thus far and the evaluation period applicable thereto were as follows:

C. September 27, 1997 - September 27, 2002

- a. The total estimated ceiling amount of this Cost-Plus-Award-Fee type contract for the above mentioned period is \$87,611,477.00.
- b. The amount presently obligated by the Government with respect to this contract for this period is \$ 53,603,701.43. In addition, carryover funds in the amount of \$3,302,599.76 are available for use in this renewal period as indicated below. The award fee pool will be as stated in the AFDP. The plan will reflect the actual award fee pool based on cumulative estimated costs for performance of approved Operations/Project Plans. The applicable base fee percentage is also described in the AFDP.

- c. Evaluation of the award fee earned will be accomplished in accordance with the then current AFDP (Attachment 11). Neither the determination as to the amount of fee available during a given period, the amount of award fee earned, nor the determination of the criteria under which the subject award fee will be made, shall be subject to FAR Subpart 52.233-1, entitled, "Disputes".
- d. Total funds currently obligated by Job Code (JC) are as follows:

High-Level Waste Job Code: D1035 New Funds: \$ 49,485,341 Deob.: \$283,756.57 Carryover: \$1,989,455.71 Total: \$51,191,039.14	Waste Solidification Systems Job Code: L1793  New Funds: Carryover: \$2,763.35 Total: \$2,763.35
Tank Waste Remediation Job Code: J5164 New Funds: \$1,375,000 Carryover: \$1,246,284.95 Total: \$2,621,284.95	Waste Solidification Systems Job Code: J5190 New Funds: Carryover: \$35,349.05 Total: \$35,349.05
Spent Fuel (TMI-2 Fuel Debris) Job Code: J5186 New Funds: \$308,878 Deob.: \$23,898 Carryover: \$28,746.69 Total: \$313,726.69	Spent Fuel (Dry Transfer) Job Code: J5206 New Funds: \$643,600 Deobligate: \$78,000 Carryover: \$0 Total: \$565,600
Aluminum-Based Spent Fuels Job Code: J5210 New Funds: \$125,000 Total: \$125,000	Spent Fuel (CIS) Job Code: D1035 New Funds: \$450,000 Total: \$450,000
Spent Fuel (PFS)* Job Code: J5226 New Funds: \$1,330,550 Total: \$1,330,550	Spent Fuel (CIS) Job Code: J5297 New Funds: \$100,000 Total: \$100,000
SKB Peer Review Job Code: J5324 New Funds: \$9,987 Total: \$9,987	Naval Spent Fuel Job Code: J5327 New Funds: \$161,000 Total: \$161,000
Total New Funds Obligated for 2nd Renewal Period: \$53,989,356.00	
Funds Deobligated during 2nd Renewal Period: 385,654.57	
Net Obligated: \$53,603,701.43	

\*PFS is subject to the license fee recovery provisions located elsewhere in this contract.  
 The TAC number for this project is L22462.

e. Total amount authorized by Operations/Project Plans is as follows:

High-Level Waste Job Code: D1035 Amount: \$43,000,000	Waste Solidification Systems Job Code: J5190 Amount: \$35,349.05 Job Code: L1793 Amount: \$2,763.35	
Tank Waste Remediation Job Code: J5164 Amount: \$2,533,830	Spent Fuel (TMI-2 Fuel Debris) Job Code: J5186 Amount: \$313,726.69	
Spent Fuel (Dry Transfer) Job Code: J5206 Amount: \$565.600	Spent Fuel (CIS) Job Code: D1035 Amount: \$450,000	
Aluminum-Based Spent Fuel Job Code: J5210 Amount: \$125,000	Spent Fuel (CIS) Job Code: J5297 Amount: \$100,000	
SKB Peer Review Job Code: J5324 Amount: \$9,987	Spent Fuel (PFS) Job Code: J5226 Amount: \$1,330,550	Naval Spent Fuel Job Code: J5327 Amount: \$139,991

Total amount authorized: \$48,571,448.04

f. The total award fee available, the award fee earned thus far and the evaluation period applicable thereto are as follows:

Section C - Description/Specifications/Work Statement

C.1 Statement of Work for Operation of the Center for Nuclear Waste Regulatory Analyses

C.1.1 Concept for CNWRA Support to NRC

C.1.1.1 Nuclear Waste Policy Act of 1982

The Nuclear Waste Policy Act of 1982 as amended (NWPAA) sets forth the policy of the United States with regard to the management, storage and disposal of this nation's high-level radioactive waste from commercial and defense activities. The NWPAA charges the Department of Energy (DOE) as the lead Federal Agency to manage the siting, construction

Yucca Mountain Draft Environmental Impact Statement (DEIS) (subtask)	James R. Firth	Francis (Skip) Young (Transportation Portion)
Hanford Tank Waste System (Operations Plan) Subtask 3.1.2 and 3.2.2 Subtask 3.1.4 Subtask 3.1.6 Subtask 3.2.1	Michael Tokar	Robert Shewmaker Rex Wescott Lydia Chang Makuteswara Srinivasan
Spent Fuels Project Office (Operations Plan) TMI-2 Fuel Debris Dry Transfer System Central Interim Storage Private Fuel Storage	Mark Delligatti	Michael Raddatz Steven L. Baggett Steven L. Baggett Michael D. Waters Mahendra Shah (Physical Security Task only)
Naval Spent Fuel		Nancy Osgood
DOE Aluminum-Based Spent Nuclear Fuels Disposition Program (Operations Plan)	Charles Greene	None

G.3.2 - Technical Assistance Sponsors

- A. The individuals listed in "C" below are hereby designated as Technical Assistance Sponsors

The individual Technical Assistance Sponsors have overall technical responsibility for the work placed at the CNWRA, within their respective areas, as detailed in paragraph C. below and are responsible for: (1) identifying, prioritizing and recommending work to be placed at the CNWRA; (2) monitoring the CNWRA's progress to ensure that work completed is commensurate with resources expended and is on schedule including surveillance and assessment of performance, and recommending to the NRC CO changes in requirements; (3) interpreting the scope of work as required; (4) performing technical evaluations as necessary; (5) performing technical reviews and acceptances as required; and (6) assisting the CNWRA in the resolution of technical problems encountered during performance. Within the purview of this authority the Technical Assistance Sponsors are authorized to review all costs requested for reimbursement by the CNWRA which are associated to their particular program area and submit recommendations for approval, disapproval, or suspension for supplies/services required under the contract to the NRC CNWRA PM. The NRC CO is responsible for directing or negotiating any changes in terms, conditions, or amounts cited in the contract and elements.

- B. The Technical Assistance Sponsors are not authorized to approve or request any action which results in or could result in an increase in contract cost; or terminate the contract, settle any claim or dispute arising under the contract or issue any unilateral directive whatsoever.