

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE DE-AC07-99ID13727	PAGE 1 OF 8 PAGES
2. AMENDMENT/MODIFICATION NO. M164	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. NOPR	5. PROJECT NO. (If applicable)	
6. ISSUED BY U.S. Department of Energy Idaho Operations Office Contract Management Division 1955 Fremont Avenue, MS 1240 Idaho Falls, ID 83415		7. ADMINISTERED BY (If other than Item 6) Jennifer K. Cate, Contract Specialist (208) 526-0631		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and Zip Code) Advanced Mixed Waste Treatment Project Bechtel BWXT Idaho, LLC 850 Energy Drive, Suite 200 Idaho Falls, ID 83401-2700			9A. AMENDMENT OF SOLICITATION NO.	
CODE			9B. DATED (SEE ITEM 11)	
FACILITY CODE			10A. MODIFICATION OF CONTRACT/ORDER NO. X DE-AC07-99ID13727	
			10B. DATED (SEE ITEM 13) June 1, 1999	

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 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)

N/A

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS;

IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

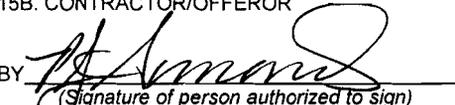
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority):	
THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.	
B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (Such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: I.23 DEAR 970.5243-1 Changes (DEC 2000)
D. OTHER (Specify type of modification and authority):	

E. IMPORTANT: Contractor ___ is not, **X** is required to sign this document and return **[3]** copies to the issuing office.

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

(See attached pages)

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

15A. NAME AND TITLE OF SIGNER (Type or print) P. James Simonds Acquisition Services Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Wendy L. Bauer Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
BY  (Signature of person authorized to sign)	3/24/08	BY  (Signature of Contracting Officer)	4/8/08

The purpose of this modification is to definitize previously authorized work during the period of February 21, 2008, and April 30, 2008, by Modification No. M163. Measure 3 is revised as a result of this change and the fee pool is increased by \$1,372,500. The work shall be performed within the estimated cost and funding available under the contract.

The contract is modified as follows:

1. B.3 ESTIMATED COST AND AVAILABLE FEE for AMWTP

For the period May 1, 2005, through April 30, 2008, the total estimated cost remains \$408,504,097, and the total available fee is increased by \$1,372,500, from \$47,650,000 to \$49,022,500. For the period May 1, 2006, through April 30, 2008, the total estimated cost remains \$258,402,700, and the total available fee is increased by \$1,372,500 to \$22,372,500.

BBWI shall continue to segregate the cost for the AMWTP work separate from the Idaho Completion Project costs. In addition, BBWI shall segregate the costs for additional CH-TRU waste processing and additional Mixed Low-Level Waste Offsite Treatment and Disposal.

2. B.4 PERFORMANCE BASED INCENTIVES for AMWTP for the 2-year period May 1, 2006, through April 30, 2008.

TOTAL MAXIMUM AVAILABLE FEE POOL - \$22,372,500

AMWTP FEE INCENTIVE - MEASURE 1 – SHIPPED AND CERTIFIED TRU WASTE TO WIPP (MAXIMUM AVAILABLE FEE = \$14.725M)

Shipped TRU m ³	Cum Fee	Average Fee per m ³	Marginal Fee per m ³
10,000	\$ 4,000,000	\$400	\$ 400
10,001-10,500	\$ 5,000,000	\$476	\$2,000
10,501-11,000	\$ 6,000,000	\$545	\$2,000
11,001-11,500	\$ 7,000,000	\$609	\$2,000
11,501-12,000	\$ 8,000,000	\$667	\$2,000
12,001-12,500	\$ 9,000,000	\$720	\$2,000
12,501-13,000	\$10,150,000	\$781	\$2,300
13,001-13,500	\$11,400,000	\$844	\$2,500
13,501-14,000	\$12,650,000	\$904	\$2,500
14,001-14,800	\$14,725,000	\$995	\$2,594

Note: No fee earned for production less than 10,000m³ (see exception in (d))

(a) BBWI assumes all risks of performance and facility maintenance/repairs required under normal operations and must perform work within \$255,888,200 estimated cost.

- (b) Subject to the availability of funds, it is anticipated FY funding will be provided as follows: FY06 - \$65M, FY07 - \$133M, and FY08 - \$74M. If EM program funding is changed, the Government and the contractor will conduct negotiations to appropriately adjust the estimated cost and total available fee pool.
- (c) BBWI must comply with the DOE approved WIPP shipping schedule based on the weekly shipping rate (for AMWTP and ARP shipments) averaged over a rolling month.
- (d) BBWI may submit requests for payment of fee for Waste Shipped* in 500m³ increments. Provisional fee will become earned fee upon completion of the minimum 10,000m³ waste shipped. DOE may adjust provisional requests for payment of fee for earned value, safety performance, and performance against the WIPP shipping schedule.
- (e) TRU Waste *Certified**** for WIPP disposal but not shipped to WIPP can be counted towards Measure 1 for fee at a value of 1m³ per 1m³ Certified-but-not-Shipped. A maximum of 2,300m³ of TRU waste Certified-but-not-Shipped may be counted against Measure 1. Earning Fee for Certified-but-not-Shipped TRU waste is in consideration of DOE's inability to provide sufficient GSFI as required under this contract.
- (f) At the end of the contract period, BBWI must leave a minimum backlog of 700m³ Waste Characterized** and 360m³ Waste Certified***. The backlog quantities are over and above the 12,500m³ waste shipped and/or certified under Measure 1 and do not include ICP buried waste (Accelerated Retrieval Project). BBWI must have in backlog one week's worth of assembled payloads (for example: assume 18 shipments per week, which will require 54 payloads) for shipments to WIPP; an additional week's worth of identified payloads (identified on paper or physically assembled) in WWIS; and a total of four week's worth of shipping consumables. Shipping consumables include those used for the assembled payloads. These backlog payloads can be comprised of either certified waste counted against the 360m³ of AMWTP waste or non-AMWTP waste (such as ICP "buried waste"). Consumables may also include quantities planned for shipment of AMWTP and non-AMWTP waste. Failure to leave the minimum backlog will result in a fee adjustment (reduction) of \$1M in earned fee for 12,500m³ shipped; \$750K for 13,000m³ shipped; \$500K for 13,500m³ shipped; and \$250K for 14,000m³ shipped.
- (g) Offsite TRU Waste processed through AMWTP can be counted towards Measure 1 for fee at a value of 2.5m³ per 1m³ shipped offsite. BBWI must process the offsite TRU waste within three (3) months of receipt and ship offsite for disposal within six (6) months of treatment. At a minimum, the offsite TRU waste will be certified and road-ready within three (3) months. BBWI must segregate, track, and give priority to the processing of offsite TRU waste received.

- (h) *TRU Waste Shipped is defined as waste certified in WWIS for disposal at WIPP, certified in WWIS for transportation to WIPP, loaded on approved carriers, and transported out of the State of Idaho.
- (i) **TRU Waste Characterized is defined as waste that has been successfully processed through Real-Time Radiography/Visual Examination, Assay, and Head Space Gas (as necessary), its relevant data validated and verified, and it is compliantly staged and ready for certification in WWIS or introduction into the treatment facility.
- (j) ***TRU Waste Certified is defined as TRU waste that has been characterized, its relevant data validated and verified, and its information entered into and approved in the WWIS Certification Module, as specified in the WIPP Hazardous Waste Permit.

Measure 2 - AMWTP Cost Incentive (Maximum Available Fee = \$5M):

BBWI must complete a combined Measure 1 and 3 volume total of at least 14,000m³ to be eligible to earn any cost incentive fee. The total project cost excludes the costs of the AMWTP Plant Upgrades and additional CH-TRU Waste Processing. BBWI may earn 30% of cost savings up to \$5M in fee, on a pro-rata basis, as follows.

Total Project Cost	Measures 1 and 3 Volume (m ³)
\$225,046,190	14,000
\$233,083,554	14,500
\$241,120,918	15,000
\$253,980,700	15,800

Example 1: BBWI may earn \$1,889,550 in fee when completing a combined Measure 1 and Measure 3 volume total of 14,700m³ at a total project cost of \$230,000,000.

Meters ³	14,700	Meets Volume Criteria	0.9304
Cost	\$230,000,000	Meets Cost Criteria	\$236,298,499
Cost Savings Fee	\$1,889,550	Cost Savings	\$6,298,499

Example 2: BBWI will earn no fee when completing a combined Measure 1 and Measure 3 volume total of 14,700m³ at a total project cost of \$237,000,000.

Meters ³	14,700	Meets Volume Criteria	0.9304
Cost	\$237,000,000	Fails Cost Criteria	0
Cost Savings Fee	0	Cost Savings	0

Measure 3 – Stored Mixed Low-Level Waste (MLLW) and Accelerate Process Improvements (Maximum Available Fee = \$2,647.5K)

(a) Stored Mixed Low-Level Waste (MLLW) Shipped Offsite for Disposal (Maximum Available Fee = \$1,647.5K)

<u>MLLW Volume (m³)</u>	<u>Cum Fee</u>	<u>Average Fee per m³</u>	<u>Marginal Fee per m³</u>
500	\$ 237,500	\$ 475	\$ 475
501-750	\$ 400,000	\$ 533	\$ 650
751-1,000	\$ 615,000	\$ 615	\$ 860
1,001-1,250	\$ 902,500	\$ 722	\$1,150
1,251-1,500	\$1,275,000	\$ 850	\$1,490
1,501-1,750	\$1,647,500	\$ 941	\$1,490

- (1) BBWI shall safely and compliantly characterize, certify, package, and ship off-site the Stored MLLW* to an authorized facility for treatment and subsequent disposal.
- (2) BBWI shall ship off-site** 500m³ of MLLW before any fee can be earned or paid. BBWI can bill in increments of 250m³ after the minimum quantity of 500m³ of MLLW has been shipped off-site.
- (3) Only the volume of the original waste container (prior to overpacking) will be considered for the volume of waste disposed.
- (4) *Stored MLLW is waste that was stored in a retrievable above ground configuration and identified by DOE as part of the original 65,000m³ of Historically Managed Stored TRU Waste.
- (5) **Shipped Off-Site MLLW is defined as MLLW that has been characterized, packaged and certified to meet the waste acceptance criteria of the appropriate treatment facility and transported to the appropriate treatment facility.

Fee for items (b) through (j) below may be earned individually after DOE-ID verifies the completion of each item.

(b) Identify and Transfer Candidate RH-TRU Containers (Available Fee = \$350K)

- (1) Identify and document the initial population of Suspect RH-TRU (e.g., Rocky Flats waste) discussed with Carlsbad Field Office (CBFO) in calendar year 2007 (~540 containers) that remain in storage.
- (2) Formally document methodology (e.g., engineering design file) and develop and implement the procedure for identifying and characterizing ‘candidate’ RH-TRU containers for transfer to CH2M-WG Idaho, LLC (CWI).
- (3) Complete characterization and analysis of initial “suspect RH-TRU” population, identified in (a) above, and either remove subject containers from the “suspect RH-TRU” population or identify containers as ‘candidate’ RH-TRU containers for eventual transfer to CWI.
- (4) Develop process/procedure for transferring RH-TRU containers and obtain CWI concurrence. BBWI shall reach an agreement with CWI concerning the

characterization required by BBWI to allow transfer of candidate RH-TRU waste to CWI. BBWI shall also reach an agreement with CWI regarding the method, timing, and cost for transferring/processing candidate RH-TRU waste. If CWI determines that some of the waste received from the AMWTP can be reclassified as CH-TRU, it will be returned to BBWI, and BBWI shall complete the required actions to prepare it for shipment and disposal. Waste container transfers shall be documented and tracked by individual container identification numbers.

- (5) 'Candidate' RH-TRU waste containers identified under (3) above by April 4, 2008, must be transferred to CWI (up to 10 containers) by April 30, 2008.

(c) Retrieval and Characterization of Transuranic Storage Area-Retrieval Enclosure (TSA-RE) Waste (Available Fee = \$300K)

Fee for waste retrieved will be earned at a rate of \$100 per m³ upon completion of items (1), (2) and (3) below and initiation of item (4) below.

BBWI shall safely and compliantly:

- (1) Retrieve⁽ⁱ⁾ stored waste from the TSA-RE and storage modules;
- (2) Formally document methodology (e.g., engineering design file) for performing screening characterization necessary to identify waste that is a candidate for (a) disposition at the Nevada Test Site (NTS) or other appropriate off-site MLLW disposal facility; and (b) RH TRU waste (see Measure 3(b) above);
- (3) Develop and implement procedure for conducting screening level characterization; and
- (4) Perform screening level characterization⁽ⁱⁱⁱ⁾ on an on-going basis.

Screening level characterization shall be documented and tracked by individual container identification numbers.

- i. Waste retrieved is defined as all waste, regardless of its eventual disposal route, that is retrieved by the Contractor from its storage location (at the TSA-RE, the RCRA Type II storage modules, or the RCRA Type I storage module); assigned an initial AMWTP container identification number that is unique; undergone initial radiation survey; weighed (actual measured weight or historical information); and all associated data entered into the AMWTP waste tracking system.
- ii. Screening level characterization includes, but is not limited to, radiological screening, non-destructive assay and/or Acceptable Knowledge documentation. DOE must approve the use of Acceptable Knowledge on a case-by-case basis for purposes of declaring screening level characterization to have been completed.

(d) Demonstrate overpack process improvements (skinny and six-drum) (Available Fee = \$100K)

- (1) Complete development and implement procedure to process six drum overpacks (SDOPs);
- (2) Process a minimum of ten (10) SDOPs (using actual waste) through the treatment facility by April 30, 2008;
- (3) Complete development and implement procedure to process skinny overpacks (compactable overpack drum, COD);
- (4) Complete modifications to Supercompactor; and
- (5) Process a minimum of five (5) skinny overpacks (using cold waste) through the treatment facility by April 30, 2008.

The processed waste (SDOPs and Skinny Overpacks) shall be documented and tracked by individual container identification numbers.

(e) Demonstrate box RTR certification viability for SWBs (Available Fee = \$75K)

- (1) Complete development and implement the procedures, processes and equipment (including modifications) to process SWBs through a certified Real-Time Radiography (RTR);
- (2) Process a minimum of five (5) SWBs loaded with waste or surrogate waste (direct loaded or in 55-gallon drums) through the RTR equipment by April 30, 2008. The collected information from these five (5) SWBs having undergone RTR would be used for the RTR certification (surveillance or audit as determined by CBFO); and
- (3) Formally request, by April 30, 2008, CBFO conducts a WIPP certification surveillance (or audit) for certifying the RTR equipment.

(f) Implement shaker table operations (Available Fee = \$75K)

- (1) Complete development and implement the procedures, processes, and equipment (including modifications) to process drums containing PCB liquids via the shaker table.
- (2) Process a minimum of 25 drums containing liquid PCB containing waste using the shaker table treatment process.

(g) Identify orphan waste disposition paths and develop implementation plan (Available Fee = \$25K)

The orphan waste disposition plan shall include:

- (1) Identification of the types of orphan wastes, including characteristics and conditions that make them orphan wastes;
- (2) Identification of the quantities of each orphan waste types (identify container IDs for retrieved waste and projected quantities for remaining waste);
- (3) Development of cost effective disposition strategies that:

- i. Identify a range of disposition alternatives for each orphan waste type;
- ii. Identify facilities, equipment, and operational approach (including both characterization, treatment and packaging needs) for each orphan waste type;
- iii. Provide the cost estimate for each orphan waste type including key assumptions, capital and operating costs, and Basis of Estimate.
- iv. Complete disposition of all subject waste by 2014; and
- v. Provide a budget profile to support the outyear budget process.

(h) Implement TSA-RE Mesh Wireless CAM network (Available Fee = \$25K)

- (1) Install wireless radios to TSA-RE CAMs and test functionality;
- (2) Upgrade TSA-RE mesh infrastructure to accept wireless radio input; and
- (3) Provide effectiveness evaluation report and recommendations for additional installation at AMWTP.

(i) Complete BROKK shear blade station improvements (Available Fee = \$25K)

- (1) Design and construct a blade changeout stand to be used at the maintenance glovebox;
- (2) Install and test the blade changeout stand in-cell; and
- (3) Complete and document five (5) blade changes using the stand and maintenance glovebox and document technician feedback.

(j) Complete development of overpack drum processing tools (Available Fee = \$25K)

- (1) Review the readily available end effectors with the vendor and determine the base platform best suited for proposed modification;
- (2) Determine prototype design for the selected platform tool arrangement;
- (3) Fabricate tool on an existing platform suited to the current quick hitch arrangement;
- (4) Test tool in the mock-up and determine any modifications; and
- (5) Transfer to the box lines and have available for overpack drum use.