

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1 CONTRACT ID CODE	PAGE OF PAGES
2 AMENDMENT/MODIFICATION NO 089	3 EFFECTIVE DATE 05/13/2011	4 REQUISITION/PURCHASE REQ NO	5 PROJECT NO (if applicable)
6 ISSUED BY Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	CODE 00901	7 ADMINISTERED BY (if other than item 6) Savannah River Operations U.S. Department of Energy Savannah River Operations P.O. Box A Aiken SC 29802	CODE 00901
8 NAME AND ADDRESS OF CONTRACTOR (No. street county State and ZIP Code) PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP INC Attn: TODD WAGER 100 WEST WALNUT STREET PASADENA CA 911240001		(x) 9A AMENDMENT OF SOLICITATION NO	
CODE 006908511 FACILITY CODE		9B DATED (SEE ITEM 11)	
		x 10A MODIFICATION OF CONTRACT/ORDER NO DE-AC09-02SR22210	
		10B DATED (SEE ITEM 13) 09/17/2002	

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 ACKNOWLEDGEMENT 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)

See Schedule

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

CHECK ONE	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
	D OTHER (Specify type of modification and authority)
X	FAR 52.243-2 Changes - Cost Reimbursement (Aug 1987) Alternate III (Apr 1984)

E. IMPORTANT: Contractor 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.)

Tax ID Number: 95-1415716
 DUNS Number: 006908511
 SF 30 Block 14 See Page 2
 Period of Performance: 09/17/2002 to 11/15/2013

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) Samuel A. Stewart
15B CONTRACTOR/OFFEROR (Signature of person authorized to sign)	16B UNITED STATES OF AMERICA  (Signature of Contracting Officer)
15C DATE SIGNED	16C DATE SIGNED 05/13/2011

The purpose of this modification is to issue a change order revising the Statement of Work (SOW), and to make certain changes to the contract terms associated with the revised SOW. These revisions are being made under the authority of the contract clause contained in Section I, Clause I.85 Changes – Costs Reimbursement (Aug 1987) Alternate III (Apr 1984). The contractor is to begin work immediately. The contractor is authorized to incur cost Not – to – Exceed (NTE) \$1,000,000.00, consistent with the other contract terms and conditions and pending definitization of this change. These funds will be used to procure long lead items (solvent) to avoid schedule and cost impacts to the project while this change is definitized.

1. Section B, Supplies or Services and Prices/Costs is modified as follows:

A. Paragraph B.1 is modified to add the following:

The contractor shall, in accordance with the terms and conditions of this contract, provide the personnel, materials, supplies and services and do all things necessary for, or incidental to, performing the changed work. The detailed description of the changed work is contained in Section C of this modification.

B. Paragraph B.4 is modified to add the following:

No Fee shall be paid to the contractor for the work under this change order (Mod 089) for the changed work including provisional fee, prior to definitization.

2. Section C, Description/Specification/Work Statement is modified as follows:

A. Section C, paragraph C.5 (g) is modified to add the Next Generation Solvent testing as follows:

Added: Next Generation Calix-Based Solvent (NG Solvent) Testing Scope of Work

This Scope of Work describes requested testing using a Next Generation Calix based Solvent (NG Solvent) for potential applicability to long term SWPF process operation. Parsons will provide technical, operational, and administrative resources to support the conduct of CSSX Full-Scale testing using the CSSX/CFF Integrated Test system constructed at the Parsons Technology Center (PTC) in Aiken, SC. This includes all costs such as direct, indirect, travel, subcontracts, and other costs including equipment and materials, and rentals needed to prepare the test system, conduct all planned testing, and prepare and issue the test plan and final report.

Parsons shall provide a test plan for DOE formal review. This test plan will include all testing necessary to address all technical issues (within the capability of the PTC Facility) required for implementation of this technology into SWPF. It will not include any tests beyond the capability of PTC such as solvent radiation durability testing. Also it will not include any costs for associated SWPF design, analysis, or modifications to implement a

new solvent. The Final Test Plan will delineate the details of the testing but at a summary level it will contain the following testing:

1. Optimize waste to solvent ratios for maximum waste processing. This would be detailed during the test plan review process but should include testing at flow rates that are 75%, 100%, 110%, 120%, and 130%/Maximum of maximum design (21.4 gpm). Provisions for changing weirs sizes to define optimum flow rates should be included.
2. Document the CSSX DF for the NG Solvent for all flow rates identified in 1 above.
3. Develop analytical laboratory procedures to support all aspects of testing including but not limited to analytical laboratory methods to analyze individual solvent components within a solvent sample and to analyze solvent concentrations in aqueous waste samples.

The scope will also include all procurements required for testing including but not limited to:

1. Provide sufficient quantity of NG Solvent to support all testing including expected testing losses with adequate margin. This is expected to be at least 150 gallons of prepared solvent.
2. Chemicals and disposal costs for 24 (Approx. 6000 gallon in each batch) batches of testing.
3. Equipment, utilities, and services to support test facility modifications and testing.

Test Schedule: Parsons will include a detailed testing schedule that supports the following milestones:

1. Notice to Proceed 5/13/2011
2. Issue draft Test Plan for DOE Formal review by 7/15/2011
3. Issue Revision 0 Test Plan by 8/12/2011
4. Complete preparation of NG Solvent by 10/14/2011
5. Procure all chemicals required for testing NLT 10/14/2011
6. Complete all needed test system modifications for testing NLT 10/14/2011
7. Complete analytical laboratory method development to support testing by 10/14/2011

8. Perform testing (24 batches IAW with Attachment 1) by 2/24/2012
9. Submit Draft Test Report by 3/30/2012 for DOE Formal Review
10. Issue Test report by 4/27/2012

The Final Report will discuss all aspects of the Test Plan including but not limited to: (1) evaluation of hydraulic and mass transfer performance at varying organic-to-aqueous ratios; (2) solvent recovery performance; (3) defining the waste (aqueous) and solvent throughputs for maximum waste processing; (4) demonstration of the maximum instantaneous throughput using NG Solvent; and (5) evaluation of the effects of all chemistry changes required to support use of NG Solvent on the SWPF CSSX process.

3. Section F, Deliveries or Performance, clause F.1 is modified as follows:

The period of performance for the changed work specified in Section C, paragraph C.5 (g) shall be for the period of performance beginning with the date of the signed modification through Apr 27, 2012.

4. Section G, Contract Administration Data is modified as follows:

The contractor may invoice costs for both changed work and other work in the same invoice. However, the contractor shall separately identify costs in its invoices that pertain to the changed work until the parties agree to an equitable adjustment for the changes ordered by the Contracting Officer.

5. The following is a definitization schedule for this change order.

This schedule applies only to the changed work specified in Section C as directed by the Contracting Officer under this modification in accordance with the clause in Section I, entitled "Changes – Costs reimbursement (Aug 1987) – Alternate III (Apr 1984)," until such time that the Contracting Officer and the contractor reach a mutual agreement and modify the contract definitizing the changed work.

MODIFICATION DEFINITIZATION

(a) The contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive modification for the changed work directed under this modification. The contractor agrees to submit its change proposal (technical cost and fee proposal) in accordance with the instructions provided herein.

(b) The schedule for definitizing this modification is as follows:

<u>Milestone</u>	<u>Date</u>
Contractor submits change proposal (Technical cost and fee proposal)	June 13, 2011
Commence Negotiations	Aug 13, 2011
Mutual agreement of on definitization of changed work	Sep 13, 2011
Contractor submits certificate of cost and pricing data	Oct 1, 2011
Execute definitization of contract modification	Oct 13, 2011

(c) If agreement on a definitive modification is not reached by the definitization date in paragraph (b) of this section, or within any extension of it generated by the Contracting Officer, the Contracting Officer may, with approval from the head of the contracting activity, determine a reasonable price in accordance with subpart 15.4 and part 31 of the FAR and Acquisition Guide 15.4-1, subject to contractor appeal as provided in the disputes clause. In any event, the contractor shall proceed with completion of the contract, subject only to the clause in section I, entitled "Limitation of Government Liability," added by this modification.

6. In reference to this change order, incorporate clause FAR 52.216-24 Limitation of Government Liability (Apr 1984)

Limitation of Government Liability (Apr 1984)

(a) In performing this contract, the Contractor is not authorized to make expenditures or incur obligations exceeding \$3,300,000.00 dollars.

(b) The maximum amount for which the Government shall be liable if this contract is terminated is \$3,300,000.00 dollars.

(End of Clause)

7. FAR 52.243-6 Change Order Accounting (Apr 1984)

8. All other terms and conditions remain unchanged.

Attachment 1

Systemization	130%	12.10	0.100	1.5	27.771	2777	1.851	1.53E+10	351	ISO	32.400	108%	54%	3	Demonstrate hardware hydraulic capacity with actual test fluids up to waste flow of 28gpm and an extraction O A of 0.1
Workup Test 1	100%	9.34	0.333	5	21.435	7138	1.428	2.17E+15	6824	150	30.000	100%	100%	1.7	Evaluate connector hydraulic performance with Water selector speeds. Evaluate turbidity of DSS and SE.
Workup Test 2	110%	10.28	0.206	3085435	23578	4.650	1.572	3.58E+13	2445	150	30.000	100%	75%	18	Evaluate connector hydraulic performance with Water selector speeds. Evaluate turbidity of DSS and SE.
Workup Test 3	120%	11.21	0.100	1.5	25.714	2.571	1.714	1.53E+10	351	150	30.030	100%	50%	20	Evaluate connector hydraulic performance with Water selector speeds up to 120% waste flow and various connector speeds. Evaluate turbidity of DSS and SE.
Workup Test 4	130%	12.10	0.100	1.5	27.771	2.777	1.851	1.53E+10	351	150	32.400	108%	54%	20	Evaluate connector hydraulic performance with Water selector speeds up to 130% waste flow and various connector speeds. Evaluate turbidity of DSS and SE.
Workup Tests	130%	12.10	0.100	1.5	27.771	2.777	1.851	1.53E+10	351	150	32.400	108%	54%	2.0	Evaluate optimal connector speeds with final water selection up to 130% waste flow. Evaluate turbidity of DSS and SE. Solvent composition trending.
Formal Test 1	75%	6.97	0.333	5	16.000	5.328	1.058	4.80E+03	2832	15.0	22.294	75%	75%	125	Measure DF and solvent recovery performance. Solvent composition trending.
Formal Test 2	100%	9.34	0.333	5	21.435	7.138	1.428	2.17E+15	6824	15.0	30.000	100%	100%	1.7	Measure DF and solvent recovery performance. Solvent composition trending.
Formal Test 5	110%	10.28	0.206	3065	23.578	4.650	1.572	3.58E+13	2445	15.0	30.000	100%	75%	1.8	Measure DF and solvent recovery performance. Solvent composition trending.
Formal Test 4	120%	11.21	0.100	15	25.714	2.571	1.714	1.53E+10	351	15.0	30.000	100%	50%	2.0	Measure DF and solvent recovery performance. Solvent composition trending.
Formal Test 5	130%	12.10	0.100	1.5	27.771	2.777	1.851	1.53E+10	351	15.0	32.400	108%	54%	2.2	Measure DF and solvent recovery performance. Solvent composition trending.
Formal Test 6	TBD	TBD	TBD	TBD	TBD	TBD	2.000	TBD	TBD	TBD	TBD	TBD	TBD	22	Validate UP- and solvent recovery performance using operating conditions from test with highest throughput that provided satisfactory performance. Solvent composition trending.

NOTES:

- 1 Complete sample sets will be taken during all formal tests. However, abego efficiencies will only be measured for up to three tests
- 2 Testing will be performed with mid-scale CFF prefilter to the extent practical to minimize fouling and allow direct comparison to previous testing.
- 3 Stripping will be performed at 36C