

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1 CONTRACT ID CODE		PAGE OF PAGES 1 1	
2 AMENDMENT/MODIFICATION NO 100		3 EFFECTIVE DATE 11/07/2011		4 REQUISITION/PURCHASE REQ. NO.	
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	
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		9A AMENDMENT OF SOLICITATION NO.		9B DATED (SEE ITEM 11)	
CODE 006908511		FACILITY CODE		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:
X	D OTHER (Specify type of modification and authority) Clause I-85 FAR 52.243-2 Changes Cost Reimbursement Alt III

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

LIST OF CHANGES:

Reason for Modification : Definitize Change Order

Total Amount for this Modification: \$1,907,029.42

New Total Amount for this Version: \$0.00

New Total Amount for this Award: \$1,194,021,929.70

FOB: Destination

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)	15C DATE SIGNED	16B UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C DATE SIGNED 11/07/2011

3. Increase the Total Target Cost, Target Fee, Fixed Fee and Non Fee Bearing Cost for Phases 1 and 2 from \$1,192,114,896.90 to \$1,194,021,926.32, an increase of \$1,907,029.42.

Contract Line Item Number (CLIN)	CLIN Description	Quantity	Dollar Value
	TOTAL Target Cost, Target Fee, Fixed Fee and Non Fee Bearing Cost for Phase 1 and 2		\$1,194,021,926.32

4. Modify Section J, "List of Attachments" as follows:
- i. Modify attachment L, "DOE directed Changes to the Statement of Work for the Next Generation Solvent testing as a subparagraph C.5(g)2 (Attachment 1 to this modification) and
 - ii. Add Attachment 8 "SWPF Incentive-Based Fee DOE Directed Changes at 7% (80/20 Share Ratio)". "SWPF CLIN 10 DOE Directed Changes at 7% Incentive-Based Fee (80/20 Share Ratio)." This cost curve is for the definitized DOE directed changes on the Next Generation Solvent.
- b. In consideration of the modification agreed to herein as complete equitable adjustments for the Contractor's proposal, "V-PMP-J-00023 Rev.3, Next Generation Solvent testing," the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the proposal, "Next Generation Solvent testing".
- c. Current funding obligated on Sep 30, 2009 will be utilized to cover costs associated with this change.
- d. Except as noted above, all other contract terms and conditions remain unchanged and in full force and effect.

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT L
DOE DIRECTED CHANGES TO THE STATEMENT OF WORK
(Mod 100)

The following Tasks are hereby incorporated into Section C.5(g) as follows:

1. **Modification 100:** Incorporate the work authorized by the Contracting officer on May 13, 2010:

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, 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 flowrates that are 75%, 100%, 110%, 120%, and 130%/Maximum of maximum design (21.4 gpm). Provisions for changing weirs sizes to define optimum flowrates 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. Chemicals and disposal costs for 24 (Approx. 6000 gallon in each batch) batches of testing.
2. 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 Modification 89
2. Issue draft Test Plan for DOE Formal review by 7/15/2011
3. Issue Revision 0 Test Plan by 8/12/2011
4. Procure all chemicals required for testing NLT 10/14/2011
5. Complete all needed test system modifications for testing NLT 10/14/2011
6. Complete analytical laboratory method development to support testing by 10/14/2011
7. Perform testing (24 batches) by 2/24/2012
8. Submit Draft Test Report by 3/30/2012 for DOE Formal Review
9. Issue Test report by 4/27/2012
10. Monthly cost tracking and progress complete will be reported to the Contracting Officer.

Note: All dates are based on NTP issued in May 2011 and will be adjusted to reflect completion dates based on Modification 100.

Note: Solvent delivery date to Parsons is estimated to be Jan 31, 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.

Please see attachment 1 to Statement of Work for test matrix.

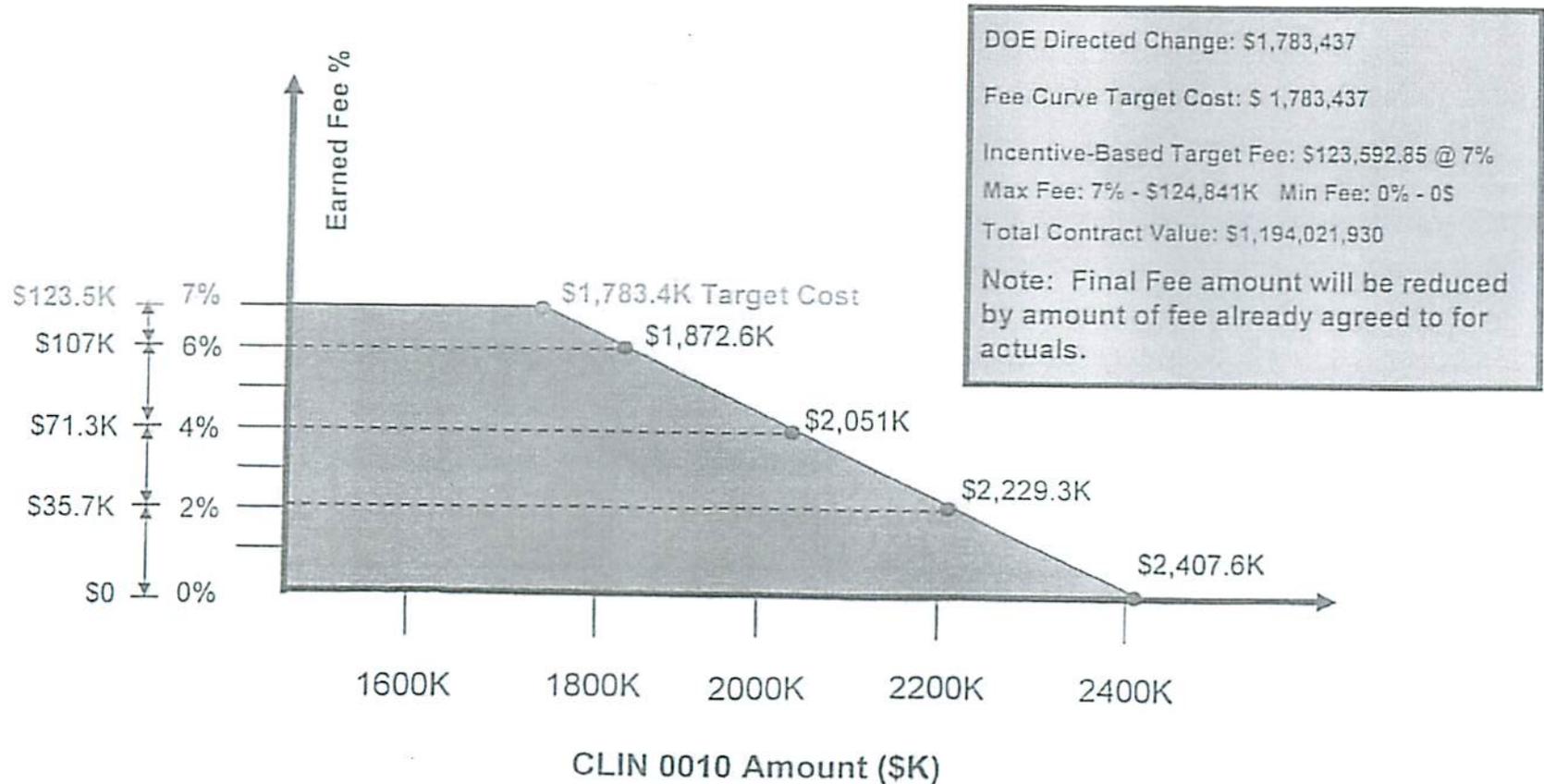
Test	% Flow Waste	Bed O/A	Se-SS/W O/A	CSB (gpm)	Solvent (gpm)	Se-SS/W (gpm)	Theoretical Solvent DF	Theoretical Test System DF	Theoretical Solvent CP	Extraction Total Flow (gpm)	Extraction % Total Flow	Strip % Total Flow	No. of Extraction Batches	Test Objectives
Systemation	130%	0.100	1.5	27.771	2.777	1.851	1.53E+10	351	15.0	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%	0.333	5	21.435	7.138	1.428	2.17E+15	6824	15.0	30,000	100%	100%	1.7	Evaluate contactor hydraulic performance with Weir Selection #1 up to 100% waste flow ratios and various contactor speeds. Evaluate turbidity of DSS and SE. Solvent composition trending.
Workup Test 2	110%	0.206	3.085455	23.578	4.850	1.572	3.58E+13	2445	15.0	30,000	100%	75%	1.8	Evaluate contactor hydraulic performance with Weir Selection #2 up to 110% waste flow and various contactor speeds. Evaluate turbidity of DSS and SE. Solvent composition trending.
Workup Test 3	120%	0.100	1.5	25.714	2.571	1.714	1.53E+10	351	15.0	30,000	100%	50%	2.0	Evaluate contactor hydraulic performance with Weir Selection #3 up to 120% waste flow and various contactor speeds. Evaluate turbidity of DSS and SE. Solvent composition trending.
Workup Test 4	130%	0.100	1.5	27.771	2.777	1.851	1.53E+10	351	15.0	32,400	108%	54%	2.0	Evaluate optimal contactor speeds with final weir selection with up to 130% waste flow. Evaluate turbidity of DSS and SE. Solvent composition trending.
Workup Test 5	130%	0.100	1.5	27.771	2.777	1.851	1.53E+10	351	15.0	32,400	108%	54%	2.0	Evaluate optimal contactor speeds with final weir selection with up to 130% waste flow. Evaluate turbidity of DSS and SE. Solvent composition trending.
Formal Test 1	75%	0.333	5	18.000	5.328	1.066	4.80E+13	2832	15.0	22,384	75%	75%	1.25	Measure DF and solvent recovery performance. Solvent composition trending.
Formal Test 2	100%	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.
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Formal Test 5	130%	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	TBD	TBD	TBD	TBD	TBD	TBD	2.2	Validate DF 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, stage efficiencies will only be measured for up to three tests.
2. Testing will be performed with full-scale CFF prior to the extent practical to minimize fouling and allow direct comparison to previous testing.
3. Stripping will be performed at 36C.

SWPF CLIN 10 - NGS

DOE Directed Changes at 7% (80/20 Fee Adjustment Formula)



Test	% Flow Waste	Ext O:A	Sc:Sl,W O:A	GSS (gpm)	Solvent (gpm)	Sc:Sl, W (gpm)	Theoretical SWPF DF	Theoretical Test System DF	Theoretical SWPF CF	Extraction Total Flow (gpm)	Extraction % Total Flow	Strip % Total Flow	No. of Simulant Batches	Test Objectives
Systemization	130%	0.100	1.5	27.771	2.777	1.851	1.53E+10	351	15.0	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.
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Formal Test 6	TBD	TBD	TBD	TBD	TBD	2.000	TBD	TBD	TBD	TBD	TBD	TBD	2.2	Validate DF 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, stage efficiencies will only be measured for up to three tests.
2. Tosting will be performed with full-scale CFF prefilter to the extent practical to minimize fouling and allow direct comparison to previous testing.
3. Stripping will be performed at 36C.

SWPF CLIN 10 - NGS

DOE Directed Changes at 7% (80/20 Fee Adjustment Formula)

