

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 0086	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY Idaho Operations U.S. Department of Energy Idaho Operations 1955 Fremont Avenue Idaho Falls ID 83415	CODE 00701	7. ADMINISTERED BY (If other than Item 6) Idaho Operations U.S. Department of Energy Idaho Operations 1955 Fremont Avenue MS 1221 Idaho Falls ID 83415	CODE 00701	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) FLUOR IDAHO, LLC Attn: AMANDA JORDAN 1070 RIVERWALK DRIVE, SUITE 201 IDAHO FALLS ID 83402		(x)	9A. AMENDMENT OF SOLICITATION NO.	
CODE 968795604			9B. DATED (SEE ITEM 11)	
FACILITY CODE		x	10A. MODIFICATION OF CONTRACT/ORDER NO. DE-EM0004083	
			10B. DATED (SEE ITEM 13) 02/04/2016	

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)

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).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Section I.100 Changes--Cost Reimbursement (Aug 1987) Alt II and III (Apr 1984)
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not. is required to sign this document and return 1 copies to the issuing office.

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

DUNS Number: 968795604

Please refer to the continuation pages incorporated as part of this modification. The Contractor is directed to continue operations in accordance with contract Section B.2.

Payment:

OR for Idaho
U.S. Department of Energy
Oak Ridge Financial Service Center
P.O. Box 6017
Oak Ridge TN 37831

FOB: Destination

Period of Performance: 06/01/2016 to 05/31/2021

Continued ...

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

15A. NAME AND TITLE OF SIGNER (Type or print) THOMAS M. WILLIAMS DIRECTOR, PRIME CONTRACTOR	15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED 5/24/18	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Jennifer K. Cate	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED 5.24.18
(Signature of person authorized to sign)			(Signature of Contracting Officer)		

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

This modification is being made under the authority of contract clause Section I.100, *Changes – Cost Reimbursement (AUG 1987) - Alternate II and III (APR 1984)*. This bilateral contract modification revises work scope contract Section C.6.5, Calcine Retrieval Project, for fiscal year (FY) 2018. This FY18 scope was incorporated under CLIN-3 by contract modifications 066 and 077.

The following changes are hereby made to the contract:

1. SECTION B.2 CONTRACT COST AND FEE SCHEDULE is revised as follows:

CLIN-3 Non-Target ICP Core Work Scope is revised to incorporate scope for the Calcine Retrieval Project under Section C.6.5:

The estimated direct cost for this scope is \$3,241,141.

Fixed fee is 4.95% of the estimated direct cost, totaling \$160,436.

Summary:

The Total Contract Value, including options, is increased by \$3,401,577 from \$1,548,551,478 to \$1,551,953,055.

The attached B.2(c) Fee Model has been updated to reflect the adjustment to CLIN-3.

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B.2(c) Table				
<u>CLIN 00001- TARGET ICP-CORE DOE MISSION WORK (BASE)</u>				
	Target Cost	Max Fee	Target Fee	Total Price
Direct Target Cost w/ ID Spt (No Options Included)	738,753,660	129,321,165		1,127,940,202
Indirect Target Cost w/o ID Spt (Total Pool, PWS C.8)	259,865,377			
	998,619,037			
Target Fee			49,431,642	
Subtotal Milestone-Schedule & Performance Fee (B.3(d))		84,208,370		
Subtotal Incremental Cost Incentive Fee		45,112,795		
Cost Incentive Breakout				
Cost Incentive (Max)		45,112,795		12.95%
Cost Incentive (Target)			17,243,887	4.95%
<u>CLIN 00002 - TARGET ICP CORE NNPP PPF WORK SCOPE</u>				
	Target Cost	Max Fee	Target Fee	Total Price
Navy (Pieces, Parts and Fines - 102 Cans)	47,162,415	6,107,533	2,334,540	53,269,948
Milestone-Schedule & Performance		5,136,375	1,963,325	
Cost Incentive (Max)		971,158	371,215	
<u>CLIN 00003 - NON-TARGET ICP CORE WORK SCOPE</u>				
	Estimated Cost	Fee		Total Price
Total Non-Target Work Scope (See Contracting Officer for Breakout)	28,152,372	1,503,390		29,655,762
<u>CLIN 00004- CONTRACT TRANSITION PERIOD</u>				
Transition	6,811,889	0		6,811,889
<u>CLIN 00005 - DEFINED BENEFIT PENSION PLAN COSTS</u>				
Pension	70,900,000	0		70,900,000
<u>CLIN 00006 INTEGRATED WASTE TREATMENT UNIT (IWTU) OPERATIONS AND TURNOVER</u>				
	Estimated Cost	Max Fee	Fee Gal	Total Price
IWTU Ops (C.6.1)	44,307,931	5,538,491	\$ 6.53	\$ 49,846,422
	Estimated Cost	Fee		
IWTU Phase 1 - Process Assessment (C.6.1.1) (Fixed Fee)	19,331,848	956,926		\$ 20,288,774
IWTU Phase 2 - Technical Issue Resolution (C.6.1.2) (Milestone Fee)	66,553,245	5,523,919		\$ 72,077,164
Total (Excluding C.6.1 IWTU Ops)	\$ 85,885,093	\$ 6,480,845		\$ 92,365,938
<u>Total Contract Cost (Excluding Options)</u>				
	Contract Cost	Max Fee	Target Fee	Total Price
	1,281,838,737	148,951,424	51,766,182	1,430,790,161
<u>Total Contract Cost (Includes Options)</u>				
Priced Options	Target Cost	Max Fee	Target Fee	Total Price
00001a - GrndWtr Monitoring Wells / CFA Landfill	773,962	100,228	38,311	874,190
00001b - GrdWtr Monitoring Wells/TAN Rem	676,966	87,667	33,510	764,633
00001c - Legacy Excess Radioactive/Haz Materials	24,747,535	3,204,806	1,225,003	27,952,341
00001d - RCRA Closure of AMWTP Facilities	30,476,158	3,946,662	1,508,570	34,422,820
00001e - Additional Temporary Storage	6,548,465	848,026	324,149	7,396,491
00001f - RH TRU Lot 11 Option Work (Definitized by Modification 048)	-	-	-	-
00001g - RH TRU Lot 12 Option Work	12,341,796	1,598,263	610,919	13,940,059
00001h - RH TRU Lot 11 GFY 2020 Option Work	19,099,074	2,473,330	945,404	21,572,404
00001i - RH TRU Lot 11 GFY 2021 Option Work	12,607,309	1,632,647	624,062	14,239,956
Total Options	107,271,265	13,891,629	5,309,928	121,162,894
Total Contract Cost (Includes Options) and Max Fee	1,389,110,002	162,843,053	57,076,110	1,551,953,055
<u>Contract Performance Ceiling (B.6)</u>				
Contract Performance Ceiling	1,216,174,411			

No other changes to B.2(c).

2. SECTION B.6(a)(2) CONTRACT PERFORMANCE CEILING is revised as follows:

The current Contract Performance Ceiling (CPC) is increased by \$3,241,141 from \$1,212,933,270 to \$1,216,174,411.

3. SECTION C.6.5.1 Calcine Retrieval Project (CLIN-3) is revised to incorporate revised scope language for the remainder of FY18.

This Section is revised *from*:

The Contractor shall complete the scope that includes work necessary to conduct proof-of-concept tests; conduct integrated retrieval tests; continue regulatory closure discussions; and prepare a draft Safety Analysis Report (SAR) revision. Specifically, the scope includes:

A. Calcine Project Management

1. Project management functions include management, financial controls records, administrative support, and travel.
2. Engineering design management includes technical leadership for the CRP team and managing the project design team and proof-of-principle (POP) testing.
3. Operations management includes operations leadership for the CRP team, facility manager for CPP-691 and managing integrated tests at the full scale retrieval and transport prototype.
4. CSSF facility closure management includes interpreting environmental regulations and continuing discussions with the regulatory agencies (i.e., DOE, the U.S. Environmental Protection Agency, and DEQ) on the path forward for RCRA closure, CERCLA NTCRA, and NDAA 3116 closure.

B. Engineering Design

1. Complete the technical and functional requirements for CSSF-1 vault weather enclosure.
2. Revise calcine Historical Processing Model (HPM).

C. Retrieval Operations

1. Prepare the full scale retrieval and transport prototype for testing
 - a. Complete Phase II of Programmable Logic Controller (PLC) configuration for system control.
 - b. Develop system operability (SO) test plans and conduct SO tests.
 - c. Develop mockup operating procedures.
 - d. Install life safety systems (fire doors and lights) in CPP-691.
 - e. Develop bulk retrieval Phase I test plan.

D. CSSF Regulatory Support

1. Prepare performance assessment (PA) based upon mockup removal efficiency.
 - a. Complete PA does assessment report.
 - b. Prepare draft PA.
2. Draft NDAA 3116 Basis document
 - a. Complete NDAA 3116 technical evaluations.
 - b. Prepare draft NDAA 3116 basis document.
3. Conduct scoping meetings with DEQ, EPA, and NRC.
4. Support DOE for NEPA requirements
 - a. Support supplemental analysis for performance based closure.
 - b. Support amended ROD for calcine performance based closure.
5. Complete CSSF 1 RCRA permit modification to support demolition of above grade structures.
 - a. Support DOE review of the draft RCRA permit modification.
 - b. Support DEQ review of the RCRA permit modification.

- c. Finalize RCRA permit modification.
 6. Prepare a draft SAR-105 revision that addresses CSSF 1 modifications.
- E. Concept Design Development
1. Design and fabricate a scaled bin base for residual retrieval concept testing.
 2. Conduct scaled testing of OC Robotics' SnakeArm technology.
 3. Revise design and fabricate new bottom up retrieval system.
 4. Design and fabricate bottom up retrieval motive air nozzle.
 5. Design, fabricate and test bin access riser placement concepts.
 6. Design, fabricate and test a bin access penetration system.
 7. Design, fabricate and test bin cleanout inspection system.
 8. Design, fabricate and test residual calcine retrieval systems.
 9. Design, fabricate and test a vacuum line placement system.
 10. Develop CSSF 1 mapping plan and map CSSF 1 vault.
 11. Design, fabricate and test bin cleaning air nozzle and lance.
 12. Prepare the FY 2018 CRP test report.
- F. FY 2018 deliverables
1. FY 2018 CRP Test Report

To:

By September 30, 2018, the Contractor shall complete the scope that includes work necessary to conduct proof-of-concept tests; conduct integrated retrieval tests; continue regulatory closure discussions; and prepare a draft Safety Analysis Report (SAR) revision. Specifically, the scope includes:

- A. Calcine Project Management
1. Project management functions include management, financial controls records, administrative support, and travel.
 2. Engineering design management includes technical leadership for the CRP team and managing the project design team and proof-of-principle (POP) testing.
 3. Operations management includes operations leadership for the CRP team, facility manager for CPP-691, maintenance of CPP-691, and managing integrated tests at the full scale retrieval and transport prototype.
 4. CSSF facility closure management includes interpreting environmental regulations and continuing discussions with the regulatory agencies (i.e., DOE, the U.S. Environmental Protection Agency, and DEQ) on the path forward for NEPA, RCRA closure, CERCLA NTCRA, and NDAA 3116 closure.
- B. Engineering Design
1. Complete the technical and functional requirements for CSSF-1 vault weather enclosure.
 2. Revise calcine Historical Processing Model (HPM).
- C. Retrieval Operations
1. Prepare the full scale retrieval and transport prototype for testing.
 - a. Configure Programmable Logic Controller (PLC) for system control.

- b. Develop system operability (SO) test plans and conduct SO tests.
- c. Develop mockup operating procedures.
- d. Install life safety systems in CPP-691.
- e. Develop bulk retrieval Phase I test plan.

D. CSSF Regulatory Support

1. Prepare performance assessment (PA).
 - a. Complete PA dose assessment report.
 - b. Prepare draft PA.
2. Integrate PA with 3116 Basis Document.
3. Develop and document Preliminary RCRA Risk Analysis.

E. Concept Design Development

1. Design and fabricate a scaled bin base for residual retrieval concept testing.
2. Conduct scaled testing of OC Robotics' SnakeArm technology.
3. Revise design and fabricate new bottom up retrieval system.
4. Design and fabricate bottom up retrieval motive air nozzle.
5. Design, fabricate and test bin access riser placement concepts.
6. Design, fabricate and test bin access penetration system.
7. Design, fabricate and test bin cleanout inspection system.
8. Design, fabricate and test residual calcine retrieval systems.
9. Design a vacuum line placement system.
10. Develop CSSF 1 mapping plan and map CSSF 1 vault.
11. Design, fabricate and test bin cleaning air nozzle and lance.
12. Prepare the FY 2018 CRP test report.

F. FY 2018 deliverables

1. FY 2018 CRP Test Report

No other changes to Section C.6.5.

- 4. CONTRACTOR'S STATEMENT OF RELEASE:** In consideration of the modification agreed to herein as a complete equitable adjustment for the directed change to incorporate the work scope identified in this modification, and in accordance with contract Section I.100 52.243-2 Changes—Cost Reimbursement Alt II and III, 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 for adjustment. The total price of the equitable adjustment for CLIN-3 is \$3,401,577 (estimated direct cost and fixed fee).

No other changes to the contract terms and conditions.