

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 0249	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY Idaho Operations Office Idaho Operations U.S. Department of Energy Idaho Operations Idaho Falls ID 89415	CODE 892432	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 FACILITY CODE		9B. DATED (SEE ITEM 11)	
		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 electronic communication 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 letter or electronic communication, provided each letter or electronic communication 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 data, 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, FAR 52.243-2 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

The purpose of this modification is to definitize work scope under Section C.6.5.04 for FY21 Calcine. In addition, this modification revises sections C.7.3.1 - NRF Seismic Borehole Drilling, C.7.3.2 Core Cartridge Preparations, and C.8.1.03 Information Operations Research Center (IORC) Relocation. See the continuation pages incorporated as part of this modification. The Contractor is directed to continue operations in accordance with Section B.2.

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 Contract		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Jennifer K. Cate	
15B. CONTRACTOR/OFFEROR <i>Thomas M Williams</i> (Signature of person authorized to sign)	15C. DATE SIGNED 01/21/2021	16B. UNITED STATES OF AMERICA Jennifer K. Cate Digitally signed by Jennifer K. Cate Date: 2021.01.21 07:22:03 -07'00' (Signature of Contracting Officer)	16C. DATE SIGNED 1/21/2021

Previous edition unusable

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-EM0004083/0249

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NAME OF OFFEROR OR CONTRACTOR
FLUOR IDAHO, LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
00001	<p>Payment: OR for Idaho U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 6017 Oak Ridge TN 37831 Period of Performance: 06/01/2016 to 05/31/2021</p> <p>Change Item 00001 to read as follows (amount shown is the total amount):</p> <p>Target ICP-Core DOE Mission Work</p> <p style="text-align: right;">2,078,437,715.00</p> <p>Line item value is: \$2,078,437,715.00 Incrementally Funded Amount: \$1,987,472,479.71</p> <p>This modification increases the Total Contract Value (including Options) by \$6,323,159 from \$2,123,042,268 to \$2,129,365,427.</p>				

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 1) Removes scope from Section C.6.2 – Calcine Disposition, 2) Adds the FY 21 Calcine scope, 3) Extends the date of the NRF Seismic Borehole Drilling, 4) Incorporates Core Cartridge Preparations scope from the NRF Office, and 5) extends the IORC relocation date. The indirect cost under CLIN-1 is adjusted to reflect the changes made to the POH table attached per Section B.15(g).

The following changes are hereby made to the contract:

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

CLIN-1: Target ICP Core DOE Mission Work Scope (Base) is revised to incorporate the change stated above.

The Direct Target Cost remains unchanged at \$956,248,260.

The Indirect Target Cost (POH) is increased by \$890,370 from \$355,781,111 to \$356,671,481.

The Total Target Cost is increased by \$890,370 from \$1,312,029,371 to \$1,312,919,741.

The Cost Incentive (Target) is increased by \$44,073 from \$32,377,767 to \$32,421,840.

The Cost Incentive (Maximum) is increased by \$115,303 from \$81,093,888 to \$81,209,191. The overall CLIN-1 Max Fee, including milestones and performance fee, is correspondingly increased by \$115,303 from \$158,200,103 to \$158,315,406.

CLIN-3: Non Target Work Scope is revised as follows:

The estimated cost for CLIN-3 is increased by \$4,946,499 from \$58,837,295 to \$63,783,794.

The fixed fee under CLIN-3 is increased by \$370,987 from \$3,091,456 to \$3,462,443.

Summary:

The Total Contract Value, including options, is increased by \$6,323,159 from \$2,123,042,268 to \$2,129,365,427.

The attached B.2(c) Fee Model has been updated to reflect the adjustment to CLIN-1 and CLIN-3.

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B.2(c) Table				
<i>CLIN 00001- TARGET ICP-CORE DOE MISSION WORK (BASE)</i>				
	Target Cost	Max Fee	Target Fee	Total Price
Direct Target Cost w/ ID Spt (No Options Included)	956,248,260	158,315,406		1,471,235,147
Indirect Target Cost w/o ID Spt (Total Pool, PWS C.8)	356,671,481			
	1,312,919,741			
Target Fee			64,989,527	
Subtotal Milestone-Schedule & Performance Fee (B.3(d))		77,106,215		
Subtotal Incremental Cost Incentive Fee		81,209,191		
Cost Incentive Breakout				
Cost Incentive (Max)		81,209,191		12.95%
Cost Incentive (Target)			32,421,840	4.95%
<i>CLIN 00002 - TARGET ICP CORE NNPP PPF WORK SCOPE</i>				
	Target Cost	Max Fee	Target Fee	Total Price
Navy (Pieces, Parts and Fines - 102 Cans)	42,567,244	5,408,387	2,513,098	47,975,631
Milestone-Schedule & Performance		3,970,091	1,963,325	
Cost Incentive (Max)		1,438,296	549,773	
<i>CLIN 00003 - NON-TARGET ICP CORE WORK SCOPE</i>				
	Estimated Cost	Fee		Total Price
Total Non-Target Work Scope (See Contracting Officer for Breakout)	63,783,794	3,462,443		67,246,237
<i>CLIN 00004- CONTRACT TRANSITION PERIOD</i>				
Transition	6,811,889	0		6,811,889
<i>CLIN 00005 - DEFINED BENEFIT PENSION PLAN COSTS</i>				
Pension	125,000,000	0		125,000,000
<i>CLIN 00006 INTEGRATED WASTE TREATMENT UNIT (IWТУ) OPERATIONS AND TURNOVER</i>				
	Estimated Cost	Max Fee	Fee Gal	Total Price
IWTU Ops (C.6.1) (Definitized by Modification 152)	0	-	\$ 6.53	\$ -
	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)	115,785,533	5,523,919		121,309,452
IWTU Phase 3/4 - Startup of Radiological Operations (C.6.1.10) (Fixed/Milestone Fee)	195,531,963	23,038,622		218,570,585
Total (Excluding C.6.1 IWTU Ops)	330,649,344	29,519,467		360,168,811
<i>Total Contract Cost (Excluding Options)</i>				
	Contract Cost	Max Fee	Target Fee	Total Price
	1,881,732,012	196,705,703	67,502,625	2,078,437,715
<i>Total Contract Cost (Includes Options)</i>				
	Target Cost	Max Fee	Target Fee	Total Price
Priced Options				
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 (Definitized by Modification 207)	-	-	-	-
00001e - Additional Temporary Storage	6,548,465	848,026	324,149	7,396,491
00001f - RH TRU Lot 11 Option Work (Definitized by Modification 050)	-	-	-	-
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 (Definitized by Modification 142)	-	-	-	-
00001i - RH TRU Lot 11 GFY 2021 Option Work (Definitized by Modification 220)	-	-	-	-
Total Options	45,088,724	5,838,990	2,231,892	50,927,714
Total Contract Cost (Includes Options) and Max Fee	1,926,820,736	202,544,692	69,734,517	2,129,365,427
<i>Contract Performance Ceiling (B.6)</i>				
Contract Performance Ceiling	1,589,806,460			
NOTE: Fixed Fee values from CLIN-3 and CLIN-6 are included in the max fee value for the total contract cost and total contract cost including options.				

No other changes to Section 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 \$5,952,172 from \$1,583,854,288 to \$1,589,806,460.

- 3. SECTION C.6.2 Calcine Disposition - High Level Waste and SNF Long Term Planning** is revised to remove the following scope:

~~The Contractor shall support the development of long-term high-level waste and SNF management strategies (both national and Idaho levels) by a separate DOE Prime contractor(s). The Contractor shall establish an Interface Agreement with the Calcine Disposition and Spent Fuel Repackaging A&E contractor to perform the required services. Support shall include but is not limited to: providing drawings, documents, and technical information; facility descriptions; facility tours, etc. The level of support and specific services provided shall be negotiated with, and paid for by the DOE Calcine Disposition and Spent Fuel Repackaging A&E contractor per an Interface Agreement.~~

This work was not priced in Fluor's original proposal, as a result there is no reduction to cost or fee.

No other changes to section C.6.2.

- 4. SECTION C.6.5.04 Calcine Retrieval Project FY21 (CLIN-3)** is added to include the following:

A. Calcine Retrieval Project (CRP) 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 technology 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 mockup.
4. CSSF facility closure management includes managing the CSSF closure team, 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 Non-Time-Critical Removal Action (NTCRA), and NDAA 3116 closure.

B. CRP Regulatory Support

1. Complete calcine direct disposal at Low Level Waste (LLW) disposal facilities evaluation report.
2. Complete calcine vitrification studies summary report.
3. Complete CSSF 1 Pipe and Closure Boundaries and Waste Management Evaluation.
4. Low-level Waste Disposal Facility Federal Review Group (LFRG) Review of CSSF Performance Assessment / Composite Analysis (PA/CA)
 - a. Resolve LFRG review comments (key and secondary issues).
 - b. Revise supporting Engineering Design Files (EDFs) as needed.
 - c. Revise CSSF PA/CA and produce Rev. D for NRC review.
5. Revise CSSF PA/CA Maintenance Plan.
6. Revise CSSF PA/CA Monitoring Plan.
7. Support DOE-HQ Review of CSSF 3116 Basis Document.
 - a. Revise CSSF 3116 Basis Document and produce Rev. D for NRC review

8. Revise CSSF Tier 1 Closure Plan.

C. CRP Operations

Perform retrieval and transport tests using the full-scale mockup.

1. Conduct bulk retrieval tests from mockup bin.
2. Conduct residual retrieval tests from mockup bin.
3. Conduct technology development tests.

D. CRP Engineering Design

1. Develop preliminary retrieval equipment installation and calcine retrieval strategy.
2. Complete system design documents (SDDs) for systems and components.
3. Develop requirements matrix.
4. Develop mockup control system automation.
5. Complete CSSF 1 vault roof structural analysis for access riser placement.
6. Enhance CSSF 1 vault model.
7. Develop technology readiness plan (technology maturation plan, TMP).
8. Design Air Processing Unit (APU) for CSSF 1.

E. Calcine Technology Development

Continue development of:

1. Vacuum crawler.
2. Articulating Arm.
3. Air Lance.
4. Access riser placement.
 - a. ARC robot welder/cutter.
 - b. Bin surface cleaning attachment.
5. Bin Inspection system.
6. Retrieval Nozzle development.
7. Blind Tee design and optimization.
8. Access riser and cartridge.
9. Bottom-up retrieval system.
10. Vacuum retrieval line installation method.
11. Bulk retrieval recovery.
12. CSSF vault coring.

F. Calcine Canister Fill Design.

1. Complete radiation testing of various seal materials.
2. Conduct containment testing of irradiated seal material.
3. Prepare Canister Fill System Development Report and Engineering Path Forward.
4. Complete preliminary design of containment connection 1.0.
5. Complete preliminary design and testing of Fluor fill funnel 2.0.
6. Conduct testing of containment connection 1.0.
7. Conduct testing of the ChargePoint Extraction Valve.

G. FY 2021 deliverables

1. FY 2021 CRP progress report.
2. Calcine direct disposal at LLW disposal facilities evaluation report.
3. Calcine vitrification studies summary report.

4. CSSF PA/CA, Rev. D.
5. CSSF 3116 Basis Document, Rev. D.

Based on this scope, the CLIN-3 estimated cost for Calcine FY21 is increased by \$4,946,499 and the corresponding fixed fee is increased by \$370,987. In addition, CLIN-1 indirect costs are increased by \$890,370. The corresponding CLIN-1 target fee is increased by \$44,073 and the CLIN-1 max fee is increased by \$115,303.

No other changes to Section C.6.5.04.

5. **SECTION C.7.3.1 NRF Seismic Borehole Drilling** is revised as follows:

The Contractor shall process all invoices submitted by the INL contractor in support of the NRF Seismic Borehole Drilling. Refer to Attachment B of this contract modification ~~449150~~ identifying the scope that will be performed by USGS/INL. The period of performance is August 1, 2019 through ~~August 1, 2020~~ **May 31, 2021**.

No other changes to Section C.7.3.1.

6. **SECTION C.7.3.2 Core Cartridge Preparations**, first paragraph, is revised as follows:

The Contractor shall ~~complete perform, to the extent possible~~, the following Core Car Preparations activities at INTEC ~~and proceed with the scope identified by Naval Reactors Laboratory Field Office as stated in letter NRLFO:IBO-21/001, dated January 11, 2021, from M. Huth to Ms. Connie Flohr by May 31, 2021.~~

The parties agree to address a true-up at the end of the contract period of performance if needed.

No other changes to section C.7.3.2.

7. **SECTION C.8.1.03 Information Operations Research Center (IORC) Relocation** is revised to reflect the following change:

The Contractor shall remove computer and network equipment from the Information Operations and Research Center and relocate the ICP Core data center to the Engineering Research Office Building by ~~September 30, 2020~~ **May 31, 2021**. The Contractor shall work with the INL Contractor as needed to ensure a timely relocation.

No other changes to section C.8.1.03

8. **CONTRACTOR'S STATEMENT OF RELEASE:** In consideration of the modification agreed to herein as a complete equitable adjustment for the directed changed 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-1 is \$1,005,673 and for CLIN-3 is \$5,317,486 (\$6,323,159 total).

No other changes to the contract terms and conditions.