

2. AMENDMENT/MODIFICATION NO. 0131 3. EFFECTIVE DATE See Block 16C 4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applicable)

6. ISSUED BY CODE 892432 7. ADMINISTERED BY (If other than Item 5) CODE 00701  
 Idaho Operations Office  
 Idaho Operations  
 U.S. Department of Energy  
 Idaho Operations  
 Idaho Falls ID 89415  
 Idaho Operations  
 U.S. Department of Energy  
 Idaho Operations  
 1955 Fremont Avenue  
 MS 1221  
 Idaho Falls ID 83415

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  
 CODE 968795604 FACILITY CODE  
 9A. AMENDMENT OF SOLICITATION NO. (x)  
 9B. DATED (SEE ITEM 11)  
 10A. MODIFICATION OF CONTRACT/ORDER NO. x 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)

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 Changes - Cost Reimbursement (AUG 1987) - Alternate 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 incorporate scope specific to CLIN-6 and CLIN-1 (Indirect costs). 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  
 Continued ...

Except as provided hereon, the content 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 CONTRACTOR Fluor Idaho, Prime Contracts 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Aaron Nebeker

15B. CONTRACTOR/OFFEROR [Signature] 15C. DATE SIGNED 7/11/19 16B. UNITED STATES OF AMERICA Aaron Nebeker 16C. DATE SIGNED 7/16/19  
 (Signature of person authorized to sign) (Signature of Contracting Officer)

**CONTINUATION SHEET**

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-EM0004083/0131

PAGE OF  
2 2

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>FOB: Destination 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>Line item value is: \$1,736,349,614.00 Incrementally Funded Amount: \$1,397,831,665.85</p> <p>This modification increases the Total Contract Value (including options) by \$81,556,956 from \$1,775,955,553 to \$1,857,512,509. See continuation pages for further details.</p>			1,736,349,614.00	

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 modification definitizes a Change Order per Modification 084 for work scope incorporated under CLIN-6 Section C.6.1.10 (revised from C.6.1.3 in Modification 084), Integrated Waste Treatment Unit (IWTU) Phase 3/4 Facility Modifications, Confirmatory Demonstration Run, System Performance Tests, and the Startup of Radioactive Operations. See Attachment A for IWTU Phase ¾ Milestone Fee Plan.

The following changes are hereby made to the contract:

1. **SECTION B.2 (c) 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 \$854,944,357.

The Indirect Target Cost is increased by \$11,091,909 from \$282,367,006 to \$293,458,915.

The Total Target Cost is increased by \$11,091,909 from \$1,137,311,363 to \$1,148,403,272.

The Cost Incentive (Target) is increased by \$549,049 from \$23,958,183 to \$24,507,231.

The Cost Incentive (Maximum) is increased by \$1,436,402 from \$62,678,479 to \$64,114,881. The overall CLIN-1 Max Fee, including milestones and performance fee, is correspondingly increased by \$1,436,402 from \$134,798,607 to \$136,235,009.

CLIN-6: Integrated Waste Treatment Unit (IWTU) Operations and Turnover:

IWTU Phase 3/4 is negotiated at a direct cost of \$61,621,715. Fee is \$7,406,930 of the direct cost, and is based on a combination of fixed fee and the following milestones:

[Next Page]

<b>IWTU Phase 3/4 Fee</b>			
Fixed Fee (6.09%)			\$ 3,750,000
Milestone Fee (5.93%)			\$ 3,656,930
<b>Total Fee Available (12.02%)</b>			<b>\$ 7,406,930</b>
<b>Milestone #</b>	<b>% of Fee</b>	<b>Description</b>	<b>Amount</b>
1	10%	Complete PGF Filter Hazen Tests & Filter Selection	\$ 365,693
2	5%	Complete Canister Fill Decon System Integrated System Test	\$ 182,847
3	10%	Complete Canister Decon System Installation and Wet/Dry System Installation	\$ 365,693
4	20%	Complete Outage J	\$ 731,386
5	20%	Complete Phase 3 IWTU Confirmatory Simulant Run and Contractor Readiness Assessment	\$ 731,386
6	35%	Conduct System Performance Test (SPT) and submit SPT report to the State of Idaho Department of Environmental Quality	\$ 1,279,926
<b>SUM</b>	<b>100%</b>		<b>\$ 3,656,930</b>

The milestone completion criteria for each milestone is shown in Attachment A – IWTU Phase 3/4 Milestone Fee Plan.

The above fee dollars are specifically associated with Part A scope; additional Part B and C scope are being performed outside this mod as authorized unpriced work until such time that a definitization mod can be incorporated to include additional scope and associated fee.

Summary:

The Contract Value is increased by \$81,556,956 (cost and fee adjustments under CLIN-1 & CLIN-6) from \$1,775,955,553 to \$1,857,512,509.

The attached B.2(c) Fee Model has been updated to reflect the adjustment to CLIN-1 and CLIN-6.

[Next Page]

<b>B.2(c) Table</b>				
<b><u>CLIN 00001 - TARGET ICP-CORE DOE MISSION WORK (BASE)</u></b>				
	Target Cost	Max Fee	Target Fee	Total Price
Direct Target Cost w/ ID Spt (No Options Included)	854,944,357	136,235,009		1,284,638,281
Indirect Target Cost w/o ID Spt (Total Pool, PWS C.8)	293,458,915			
	1,148,403,272			
Target Fee			56,845,962	
Subtotal Milestone-Schedule & Performance Fee (B.3(d))		72,120,128		
Subtotal Incremental Cost Incentive Fee		64,114,881		
Cost Incentive Breakout				
Cost Incentive (Max)		64,114,881		12.95%
Cost Incentive (Target)			24,507,233	4.95%
<b><u>CLIN 00002 - TARGET ICP CORE NNPP PPF WORK SCOPE</u></b>				
	Target Cost	Max Fee	Target Fee	Total Price
Navy (Pieces, Parts and Fines - 102 Cans)	42,367,181	5,382,479	2,503,195	47,749,660
Milestone-Schedule & Performance		3,970,091	1,963,325	
Cost Incentive (Max)		1,412,388	539,870	
<b><u>CLIN 00003 - NON-TARGET ICP CORE WORK SCOPE</u></b>				
	Estimated Cost	Fee		Total Price
Total Non-Target Work Scope (See Contracting Officer for Breakout)	35,164,864	1,932,898		37,097,762
<b><u>CLIN 00004- CONTRACT TRANSITION PERIOD</u></b>				
Transition	6,811,889	0		6,811,889
<b><u>CLIN 00005 - DEFINED BENEFIT PENSION PLAN COSTS</u></b>				
Pension	125,000,000	0		125,000,000
<b><u>CLIN 00006 INTEGRATED WASTE TREATMENT UNIT (IWTU) OPERATIONS AND TURNOVER</u></b>				
	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)	90,364,264	5,523,919		\$ 95,888,183
IWTU Phase 3/4 - Startup of Radiological Operations (C.6.1.10) (Fixed/Milestone Fee)	61,621,715	7,406,930		69,028,645
<b>Total (Excluding C.6.1 IWTU Ops)</b>	<b>\$ 171,317,827</b>	<b>\$ 13,887,775</b>		<b>\$ 185,205,602</b>
<b><u>Total Contract Cost (Excluding Options)</u></b>				
	Contract Cost	Max Fee	Target Fee	Total Price
	1,573,372,964	162,976,652	59,349,157	1,736,349,616
<b><u>Total Contract Cost (Includes Options)</u></b>				
	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	1,680,644,229	176,868,281	64,659,085	1,857,512,509
<b><u>Contract Performance Ceiling (B.6)</u></b>				
Contract Performance Ceiling	1,374,364,694			
<b>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.</b>				

No other changes to Section B.2.

- SECTION B.6(a)(2) CONTRACT PERFORMANCE CEILING** is increased by \$12,528,311 from \$1,361,836,383 to \$1,374,364,694
- POH TRACKING TOOL** has been updated to include the changes as a result of this modification and is incorporated as part of this modification.

**4. SECTION C.6.1.10, INTEGRATED WASTE TREATMENT UNIT (IWTU) PHASE 3/4, FACILITY MODIFICATIONS, CONFIRMATORY DEMONSTRATION RUN, SYSTEM PERFORMANCE TESTS, AND THE STARTUP OF RADIOACTIVE OPERATIONS** is definitized as follows:

Overall Phase 3/4 scope of work:

The Contractor shall perform all necessary work to achieve the startup of radiological operations (processing sodium bearing waste). This includes facility modifications, a confirmatory demonstration run, and system performance tests.

Part A - The scope of work specific to this modification, which supports the overall scope of work, includes:

1. Early engineering, procurement, planning, and execution of accelerated Outage J work into the PGF outage, including installation of new (coated, sintered-metal filter) PGF elements
2. Outage J, Part A plant modifications items as specified in Fluor's proposal (CCN 323109)
3. Fiscal Year (FY) 2019 level of effort (LOE)
4. FY 2019 Hazen Research Inc. (Hazen) scope
5. FY 2019 external laboratory and consultant support identified to date (e.g., Particulate Solids Research, Inc., Battelle Energy Alliance, LLC, Studsvik AB, Savannah River National Laboratory, Fluor Corporate Support, Dominion Engineering, etc.)
6. Confirmatory run consumables
7. FY 2020 LOE through the Phase 3 confirmatory run, CRA, and DOE approval to commence the Phase 4 SPT; excludes schedule extensions due to Part B and C items.

The overall scope of work is broken down into three parts. Part A (above) is scope that could be well defined and accurately estimated. Part B is scope that is known but could not be definitively estimated at the time of Part A proposal submission. This scope of work will be estimated at a later date. Part C items recognizes that due to the complexity of this work, that there may be additional items that cannot be known at this time. However, as they arise they will be addressed appropriately in accordance with Section B.15 Advance Understanding – Changes to Cost and Fee.

- 5. CONTRACTOR'S STATEMENT OF RELEASE:** In consideration of the modification agreed to herein as a complete equitable adjustment (Part A scope) for the directed change to incorporate the work scope under CLIN-6 Section C.6.1.10, Integrated Waste Treatment Unit (IWTU) Phase 3/4 Part A Facility Modifications, Confirmatory Demonstration Run, System Performance Tests, and the Startup of Radioactive Operations, 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 is \$81,556,956. See table below for breakout:

	<b>CLIN-6</b>	<b>CLIN-1</b>	<b>Total</b>
<b>Cost</b>	\$ 61,621,715	\$11,091,909	\$72,713,624
<b>Fee</b>	\$ 7,406,930	\$ 1,436,402	\$ 8,843,332
<b>Total</b>	\$ 69,028,645	\$12,528,311	<b>\$81,556,956</b>

No other changes to the terms and conditions.

**Attachment A**  
**IWTU Phase 3/4**  
**Milestone Fee Plan**

**Milestone #1 – (August 2019) – 10%**

Objective: Complete the Process Gas Filter (PGF) Hazen Tests & Filter Selection.

This milestone is complete when: An Engineering Position File (EPF) is issued documenting the selected filter.

Authorization to submit fee invoice: When DOE accepts the filter selection identified in the EPF or 14 business days after the EPF is issued to DOE, whichever comes first.

**Milestone #2 - (September 2019) – 5%**

Objective: Complete Canister Fill Decon System Integrated System Test at Columbia Energy.

This milestone is complete when: A final report is issued showing successful completion of the Integrated System Test.

Authorization to submit fee invoice: When DOE accepts the final report showing successful completion of the Integrated System Test, or 14 business days after submission to DOE, whichever comes first.

**Milestone #3 - (May 2020) – 10%**

Objective: Complete Canister Decon System Installation and Wet/Dry System Installation

This milestone is complete when:

- Installation in Canister Fill 0 and Canister Fill 1 cells are complete as shown by completed work orders
- Successful system performance testing of both systems is complete as shown in System Test Reports
- Wet/Dry Decon System is installed as shown by completed work orders
- Wet/Dry Decon System completes successful system performance test as shown in the system test report

Authorization to submit fee invoice: When DOE accepts the test reports for both the Canister Decon system and Wet/Dry System, or 14 business days after submission to DOE, whichever comes first.

**Milestone #4 - (Spring/Summer 2020) – 20%**

Objective: Complete Outage J

This milestone is complete when:

- Lock-Out-Tag-Out (LOTO) is removed
- All post maintenance testing (PMT) is completed on the remaining systems that could not have been completed under the facility LOTO

Authorization to Submit Fee Invoice: Upon DOE verification that all PMT's are complete.

**Milestone #5 – (Summer/Fall 2020) – 20%**

Objective: Complete Phase 3 IWTU Confirmatory Simulant Run and CRA Assessment

This milestone is complete when:

- The confirmatory report is issued to DOE
- The contract readiness assessment (CRA) report is issued with all pre-start findings closed

Authorization to submit fee invoice: Upon DOE verification of completion of the CRA including the assurance that all pre-start findings have been closed, or 14 business days after the CRA report is issued, whichever comes first.

**Milestone #6 - (Summer/Fall 2020) – 35%**

Objective: Conduct System Performance Test (SPT) and submit SPT report to the State of Idaho Department of Environmental Quality (DEQ)

This milestone is complete when:

- Sodium Bearing Waste (SBW) is introduced into the Integrated Waste Treatment Unit (IWTU)
- The SPT report has been submitted to DEQ.

Authorization to Submit Fee Invoice: Upon DOE verification that the SPT is adequate to send to DEQ, or 14 business days after the SPT report is issued to DOE, whichever comes first.