

2. AMENDMENT/MODIFICATION NO. 0027	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	<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO. DE-EM0004083
		10B. DATED (SEE ITEM 13) 02/04/2016
CODE 968795604	FACILITY CODE	

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. Section I.100, Changes-Cost Reimbursement (Aug 1987) Alt II and III (Apr 1984)
<input checked="" type="checkbox"/>	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).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	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)

Tax ID Number: 45-2724914
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 Section B.2(c).

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

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) <i>Thomas P. Williams</i> Thomas P. Williams Prime Contract Manager (Signature of person authorized to sign)	15C. DATE SIGNED 2-13-17	15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Maria M. Mitchell-Williams	15C. DATE SIGNED 2-13-17
15B. UNITED STATES OF AMERICA		15C. DATE SIGNED	

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-EM0004083/0027

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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>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 Line item value is:: \$1,195,327,103.00 Incrementally Funded Amount: \$321,733,551.56</p> <p>This modification increased CLIN-1 value by \$5,333,916 (direct cost plus max fee). Refer to the continuation pages.</p> <p>Change Item 00003 to read as follows (amount shown is the total amount):</p>				1,195,327,103.00
00003	<p>FOR OFFICIAL USE ONLY</p> <p>Non-Target ICP-Core Naval Nuclear Propulsion Program (NNPP) - Spent Nuclear Fuel (SNF) Line item value is:: \$25,409,868.79 Incrementally Funded Amount: \$25,409,868.79</p> <p>This modification definitizes the Navy Fuel Inversion under CLIN-3, estimated cost of \$678,707 and fixed fee of \$33,596. The contractor is directed to continue operations in accordance with Section B.2(c).</p>				25,409,868.79

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 incorporates work scope under Sections C.6.5 Calcine Retrieval Project and C.7.3 Navy Nuclear Propulsion Program (NNPP) SNF.

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 revised work scope under Section C.6.5 Calcine Retrieval Project:

The Direct Target Cost is increased by \$4,722,370 from \$759,056,971 to \$763,799,341.

The Indirect Target Cost remains unchanged at \$294,500,520.

The Total Target Cost is increased by \$4,722,370 from \$1,053,557,491 to \$1,058,279,861.

The Cost Incentive (Target) is increased by \$233,757 from \$18,663,354 to \$18,897,111.

The Cost Incentive (Maximum) is increased by \$611,546 from \$48,826,350 to \$49,437,896. The overall CLIN-1 Max Fee, including milestones and performance fee, is correspondingly increased by \$611,546 from \$136,435,696 to \$137,047,242.

CLIN-3: Non-Target ICP Core Work Scope is revised to incorporate work scope under Section C.7.3 Navy Nuclear Propulsion Program (NNPP) SNF:

The estimated direct cost for this new scope is \$678,707.

The fixed fee is \$33,596.

Summary:

The Total Contract Value, including options, is increased by \$6,046,220 (target cost and max fee for CLIN-1, and estimated cost and fixed fee for CLIN-3) from \$1,522,286,395 to \$1,528,332,615.

NOTE: Previously, the fixed fee in CLIN-3 was incorrectly included in both the Max Fee and Target Fee values. The CLIN-3 total fixed fee value has been removed from the Target Fee total value.

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

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)	763,779,341	137,047,242		1,195,327,103
Indirect Target Cost w/o ID Spt (Total Pool, PWS C.8)	294,500,520			
	1,058,279,861			
Target Fee			52,384,853	
Subtotal Milestone-Schedule & Performance Fee (B.3(d))		87,609,346		
Subtotal Incremental Cost Incentive Fee		49,437,896		
Cost Incentive Breakout				
Cost Incentive (Max)		49,437,896		12.95%
Cost Incentive (Target)			18,897,111	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)	61,158,338	7,920,005	3,027,338	69,078,343
Milestone-Schedule & Performance		5,148,003	1,967,770	
Cost Incentive (Max)		2,772,002	1,059,568	
<u>CLIN 00003 - NON-TARGET ICP CORE WORK SCOPE</u>				
	Estimated Cost	Fee		Total Price
Navy (SNF)	13,205,208	653,658		13,858,866
NE	1,175,070	58,166		1,233,236
<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)	44,438,999	5,554,875	\$ 6.53	\$ 49,993,874
	Estimated Cost	Fixed Fee		
IWTU Phase 1 - Process Assessment (C.6.1.1)	19,331,848	956,926		\$ 20,288,774
<u>Total Contract Cost (Excluding Options)</u>				
	Contract Cost	Max Fee	Target Fee	Total Price
	1,275,301,213	152,190,872	55,412,191	1,427,492,085
<u>Total Contract Cost (Includes Options)</u>				
Priced Options	Target Cost	Max Fee	Target Fee	Total Price
00001a - GrndWtr Monitoring Wells / CFA Landfill	776,251	100,525	38,424	876,776
00001b - GrdWtr Monitoring Wells/TAN Rem	678,969	87,926	33,609	766,895
00001c - Legacy Excess Radioactive/Haz Materials	24,820,741	3,214,286	1,228,627	28,035,027
00001d - RCRA Closure of AMWTP Facilities	30,566,310	3,958,337	1,513,032	34,524,647
00001e - Additional Temporary Storage	6,567,836	850,535	325,108	7,418,371
00001f - RH TRU Lot 11 Option Work	13,490,500	1,747,020	667,780	15,237,520
00001g - RH TRU Lot 12 Option Work	12,378,304	1,602,990	612,726	13,981,294
Total Options	89,278,911	11,561,619	4,419,306	100,840,530
Total Contract Cost (Includes Options) and Max Fee	1,364,580,124	163,752,491	59,831,497	1,528,332,615
<u>Contract Performance Ceiling (B.6)</u>				
Contract Performance Ceiling	1,285,597,613			

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).

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

The current Contract Performance Ceiling (CPC) is increased by \$6,046,220 from \$1,279,584,990 to \$1,285,597,613. This includes the work scope incorporated with this contract modification.

No other changes to B.6.

3. SECTION C.6.5 Calcine Retrieval Project is revised to incorporate the following scope:

The scope of work includes work necessary to conduct proof-of-concept tests, initiate regulatory closure discussions and prepare a Safety Analysis Report (SAR) addendum.

- A. Conduct six proof-of-concept tests to reduce design risk, safety hazards and unknowns. The six proof-of-concept tests include:
1. CSSF 1 distributor/fill line clean-out
 - Development and fabrication of an apparatus and method for removing residual calcine from the CSSF 1 distribution and fill line network.
 2. Thermowell conversion
 - Development of an approach for removing the thermocouple wires from the thermowell pipes, cutting off the bottom thermowell cap, and installing the retrieval system platform.
 3. Top-down residual calcine retrieval
 - Development of supporting equipment for clean-out of residual calcine.
 4. Bottom-up retrieval testing
 - Test thermowell vacuum retrieval apparatus to define operating parameters and evaluate retrieval rate, flow characteristics and bin cleanliness.
 5. D&D Pipe crimping and removal
 - Evaluate methods for crimping CSSF-1 piping in order to safely remove the piping while containing residual calcine.
 6. Riser installation
 - Development of an approach for installing bin group retrieval access risers.
- B. Initiate 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. Work shall include the following:
1. Conduct scoping meetings with DEQ, EPA, and NRC.
 2. Hold performance assessment/composite analysis scoping meetings with NRC/DEQ.
 3. Initiate preparation of a draft performance assessment/composite analysis based upon predicted level of calcine retrieval.
 4. Initiate preparation of background documents to support RCRA closure, CERCLA EE/CA, and NDAA 3116 closure.

5. Development of a Permit Modification Request for submittal to DOE for review and certification for transmittal to DEQ to support grouting of vault, demolition of above grade structures, and construction of retrieval and transfer system.
- C. Safety basis
1. Draft SAR/TSR-105 Addendum for CSSF-1 D&D.
 2. Complete DOE approval of SAR/TSR-105 Addendum and implement the addendum.
- D. FY17-18 Deliverables
1. Draft SAR/TSR-105 Addendum for CSSF-1 D&D.
 2. CRP Test Report documenting the results of the six proof-of-concept tests.
 3. Residual clean out technology selection report (for environmental support).
 4. Draft RCRA Permit Modification Request (as necessary to support grouting, demolition, retrieval, and transfer).

The negotiated estimated direct cost under CLIN-1 is \$4,722,370 with a target fee of \$233,757 and a max fee of \$611,547.

No other changes to Section C.6.5.

4. **SECTION C.7.3 Navy Nuclear Propulsion Program (NNPP) SNF** is revised to incorporate the following scope:

The Contractor shall re-orient 48 half clusters that are currently stored in an inverted orientation (i.e., the operational top of the cluster is at the bottom of the storage bucket) in Chemical Processing Plant (CPP)-666.

The negotiated estimated direct cost under CLIN-3 is \$678,707 with a fixed fee of \$33,596.

No other changes to Section C.7.3.

5. **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(s) 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 \$5,333,916 (target direct cost and max fee), and the total price of the equitable adjustment for CLIN-3 is \$712,303 (estimated direct cost and fixed fee); totaling \$6,046,220. NOTE: If DOE-ID elects to have the Contractor continue the Calcine Disposition Project (CDP) subsequent to this effort, both parties agree not to incorporate any follow-on CDP work under CLIN-1.

No other changes to the terms and conditions.