

2. AMENDMENT/MODIFICATION NO. 3. EFFECTIVE DATE 4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applicable)
 0077 See Block 16C

6. ISSUED BY CODE 00701 7. ADMINISTERED BY (If other than Item 6) CODE 00701

Idaho Operations Idaho Operations
 U.S. Department of Energy U.S. Department of Energy
 Idaho Operations Idaho Operations
 1955 Fremont Avenue 1955 Fremont Avenue
 Idaho Falls ID 83415 MS 1221
 Idaho Falls ID 83415

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 9A. AMENDMENT OF SOLICITATION NO.

FLUOR IDAHO, LLC (x)
 Attn: AMANDA JORDAN
 1070 RIVERWALK DRIVE, SUITE 201
 IDAHO FALLS ID 83402

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 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 X	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. I.100 Changes--Cost Reimbursement (Aug 1987) Alt II and III (Apr 1984)
	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:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 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 issue a unilateral change order for CLIN-3 Non-Target ICP Core work scope. Please refer to the continuation pages and Contracting Officer letter 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 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) 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
 Jennifer K. Cate
 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED
 (Signature of person authorized to sign) (Signature of Contracting Officer)
 4.16.18

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-EM0004083/0077

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

The purpose of this modification is to issue a unilateral change order revising contract Section C.6.5, Calcine Retrieval Project. 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)*.

The issuance of this modification confirms the change order issued by Contracting Officer letter (AS-CMD-ICP/Fluor-18-060), dated April 12, 2018. The letter is incorporated with this modification.

The following changes are hereby made to the contract:

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

This Section is revised *from*:

The Contractor shall complete the following work scope:

- Project Management
 - Project Management functions include management, financial controls records, administrative support, and travel.
 - Engineering design management includes technical leadership for the CRP team and managing the project design team.
 - Operations management includes operations leadership for the CRP team and managing the full scale retrieval and transport pilot plant.
- Engineering Preliminary Design
 - Identify CSSF-1 vault weather enclosure requirements.
- Retrieval Operations
 - Program the pilot plant Programmable Logic Controller (PLC) for auto control.
 - Conduct pilot plant system operability tests.
- Proof-of-Concept Testing
 - Revise residual calcine retrieval system design.
 - Design access riser placement system.
 - Design bin cleanout inspection system.

To:

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. Finalize 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. Initiate preliminary design of OC Robotics' hybrid SnakeArm.
 3. Conduct scaled testing of OC Robotics' SnakeArm technology.
 4. Revise design and fabricate new bottom up retrieval system.
 5. Design and fabricate bottom up retrieval motive air nozzle.
 6. Design, fabricate and test bin access riser placement concepts.

7. Design, fabricate and test a bin access penetration system.
8. Design, fabricate and test bin cleanout inspection system.
9. Design, fabricate and test residual calcine retrieval systems.
10. Design, fabricate and test a vacuum line placement system.
11. Develop CSSF 1 mapping plan and map CSSF 1 vault.
12. Design, fabricate and test bin cleaning air nozzle and lance.
13. 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.

No other changes to the contract terms and conditions.