

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1. CONTRACT ID CODE \_\_\_\_\_ PAGE **1** OF \_\_\_\_\_ PAGES **5**

2. AMENDMENT/MODIFICATION NO. **394** 3. EFFECTIVE DATE (M/D/Y) **See Block 16C** 4. REQUISITION/PURCHASE REQ. NO. \_\_\_\_\_ 5. PROJECT NO. (If applicable) \_\_\_\_\_

6. ISSUED BY CODE \_\_\_\_\_ 7. ADMINISTERED BY (If other than Item 6) CODE \_\_\_\_\_  
**U.S. Department of Energy**  
**Office of River Protection**  
**P. O. Box 450, MS H6-60**  
**Richland, WA 99352**

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code)  
**Bechtel National, Inc.**  
**2435 Stevens Center Place**  
**Richland, WA 99354**

9A. AMENDMENT OF SOLICITATION NO. \_\_\_\_\_  
 9B. DATED (SEE ITEM 11) \_\_\_\_\_  
 10A. MODIFICATION OF CONTRACT/ ORDER NO. **DE-AC27-01RV14136**  
 10B. DATED (SEE ITEM 13) **December 11, 2000**

CODE **396A5** FACILITY CODE **153392068**

**11. THIS ITEM 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 DATE AND HOUR 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 amendment and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS SET FORTH 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 ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF: Clause I.82, FAR 52.243-2 Changes – Cost Reimbursement (AUG 1987) – Alternate III (APR 1984)

D. OTHER (Specify type of modification and authority)

**E. IMPORTANT: Contractor  is not,  is required to sign this document and return 2 copies to the issuing office.**

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
**See following page(s)**  
**Period of Performance: 12/11/2000 to 12/31/2022**

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

15A. NAME AND TITLE OF SIGNER (Type or print) **Margaret G. McCullough**  
**Project Director**

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) **George F. Champlain**  
**Contracting Officer**

15B. CONTRACTOR/OFFEROR **Margaret G. McCullough**  
 (Signature of person authorized to sign)

15C. DATE SIGNED **6/20/17**

16B. UNITED STATES OF AMERICA BY **George F. Champlain**  
 (Signature of Contracting Officer)

16C. DATE SIGNED **6/21/2017**

**Purpose of Modification:**

The purpose of this modification is to revise Section J, List of Attachments, Attachment Q, DFLAW Design Completion Criteria Incentive Definitions, DF-01, Cost Incentive Milestone Definition Sheet.

These changes are performed under the authority provided by Contract Clause I.82, FAR 52.243-2 *Changes – Cost Reimbursement (AUG 1987) – Alternate III (APR 1984)* at no additional cost to the Government.

**Description of Modification:**

Section J, List of Attachments, Attachment Q, DFLAW Design Completion Criteria Incentive Definitions, DF-01, Cost Incentive Milestone Definition Sheet is revised by removing the Preliminary Documented Safety Analysis and Hazard Analysis scope from the Schedule Declaration of Completion (DOC), providing clarity on the expectations for the Schedule DOC and the Cost DOC, and correcting editorial errors in the Milestone Definition and Section 1: Major Design Elements. The changes do not relieve any requirements or expectations but provide clarity in milestone completion expectations and alignment of the nuclear safety expectations for EMF in support of DFLAW operations.

The changes to the DF-01, Cost Incentive Milestone Definition Sheet are indicated below in bold for language being added and redline/strikeout for language being deleted as a result of this contract modification.

**Milestone**

**DF-01, Cost Incentive Milestone Definition Sheet WTP Contract No. DE-AC27-01RV14136**

Facility	Activity ID	Description
DFLAW		CLIN 2.1 DFLAW Design Completion

**Milestone Definition**

Completion of major design activities ~~associated~~ contained in Section 1 **progresses the major design elements to a committed status that supports a bid for procurement and construction of the DFLAW project, and** constitutes completion of the schedule incentive/disincentive portion of the DFLAW Design Completion fee. Completion of the Residual Scope Elements in Section 2, and Section 3 defines objective evidence for completion of CLIN 2.1 design for the purposes of calculating the Cost Incentive Fee as set forth in Section B-2-H.

**Section 1: Major Design Elements**

- System Design Description/Facility Design Description

- Final Process Flow Diagrams
- Heat and Material Balance
- Major Equipment Lists
- Instrumentation Specifications
- Major System Calculations
- Major System Specifications and Data sheets
- ~~Major System Calculations~~
- Piping and instrumentation diagrams (P&ID)/Line and valve lists
- Ventilation and instrumentation diagrams and lists
- Plant layout design detailed planning (3D model)
- Detailed Piping Design
- Stress and Support design
- Architectural Design Renderings, Layouts, details and schedules
- Structural/Foundation Design Concrete
- Structural/Foundation Design Steel
- Civil Design drainage, grading, paving underground
- Radiation Safety Design Criteria
- ~~Hazards Analysis~~
- Fire Analysis
- ~~Preliminary Documented Safety Analysis (PDSA).~~

## Section 2: Residual Scope Elements

- Arc Flash Calculations
- Final Termination Schedules
- Software Requirements
- Final Instrument Index
- Functional Acceptance Testing (Operations and Engineering Testing)
- Develop ICN Simulator Software for LAW/EMF
- Final Public Reviews/Permitting – operating and final installation permit for DWP equipment in EMF (evaporator and tanks)
- Management of Acquired Software. IT-14 is the old procedure for software quality and putting software on the baseline, this procedure will be replaced with a new engineering procedure.

## Section 3: Objective Evidence of Milestone Completion and DFLAW Activity ID Key Predecessors

Completion of this milestone shall be measured by submittal of a “Declaration of Completion” (DOC) package by BNI. Separate DOC packages shall be submitted for the Schedule and Cost components of this milestone supported by evidence of completion. The Schedule DOC package shall include evidence of completion of the Major Design Elements defined in Section 1. The DOC package for the cost component of this milestone shall include evidence of completion of

Residual-Scope elements defined in Sections 1 and 2 to a confirmed status. The Cost DOC shall include evidence of completion of those activities which would support a bid for procurement and construction of the DFLAW project. The Cost DOC submittal shall include the following elements of work:

- Engineering report for DFLAW scope with confirmed calculations and drawings.
- Confirmed specifications and datasheets, suitable for soliciting bids from contractors and suppliers
- Initial issuance of the preliminary safety analysis and preliminary fire hazard analysis.

The following list of Key Predecessors will be completed:

Activity ID	Description	Activity ID	Description
3ED90BODCN	EMF - E1 - BODCN Completion	3ED900011	EMF - E1 - Perform 30% Review
3ED900025	EMF - E1 - DFLAW - ICD 30	<del>3ED90HAZD</del>	<del>EMF - E1 - Hazardous Analysis Completion</del>
3ED900026	EMF - E1 - DFLAW - ICD 31	3ED4800008	EMF - EN - Issue Water DIW / DOW / PCW/PSW P&IDs & Lists - Rev 0
3ED900027	EMF - E1 - DFLAW - ICD 6	3ED4800009	EMF - EN - Issue Air BSA/ISA/ PSA P&IDs & Lists - Rev 0
3ED4800004	EMF - EN - Issue Drains / Vents / Interfaces P&IDs & Lists - Rev 0	3ED4800006	EMF - EN - Issue Steam LPS / HPS / SCW P&IDs & Lists - Rev 0
3ED4800014	EMF - EN - Issue Evaporator P&IDs & Lists - Rev 0	3ED2700017	EMF - EH - Issue Fire Protection P&ID (1) - Rev 0
3ED4800017	EMF - EN - Issue Major Water DIW / DOW / PCW / PSW Equipment Datasheets - Rev 0	3ED4800118	EMF - EN - Issue Major Air BSA/ISA/PSA Equipment Datasheets - Rev. 0
3ED4800114	EMF - EN - Issue Evaporator Equipment Datasheets - Rev. 0	3ED4800115	EMF - EN - Issue Major Drains/Vents/Interfaces Equipment Datasheets Rev. 0
3ED4800116	EMF-EN-Issue Major Equipment Datasheets to Support Permitting -Rev. 0	3ED1700108	EMF - EJ - Develop and Issue HVAC and Fire Protection Instruments Data Sheets Rev. 0
3ED1700069	EMF - EJ - Develop and Issue Steam LPS/HPS/SCW Instruments Data Sheets Rev. 0	3ED1700042	EMF - EJ - Develop and Issue Water DIW/DOW/PCW/PSW Instruments Data Sheets Rev. 0
3ED1700086	EMF - EJ - Develop and	3ED1700081	EMF - EJ - Develop and Issue

Activity ID	Description	Activity ID	Description
	Issue Air BSA/ISA/PSA Instruments Data Sheets Rev. 0		Evaporator Instruments Data Sheets Rev. 0
3ED1700098	EMF - EJ - Develop and Issue Drains Instruments Data Sheets Rev. 0	3ED1700042	EMF - EJ - Develop and Issue Water DIW/DOW/PCW/PSW Instruments Data Sheets Rev. 0
3ED4800118	EMF - EN - Issue Major Air BSA/ISA/PSA Equipment Datasheets - Rev. 0	3ED4800115	EMF - EN - Issue Major Drains/Vents/Interfaces Equipment Datasheets Rev. 0
3ED4800116	EMF - EN - Issue Major Equipment Datasheets to Support Permitting - Rev. 0	3ED4800114	EMF - EN - Issue Evaporator Equipment Datasheets - Rev. 0
3ED1700069	EMF - EJ - Develop and Issue Steam LPS/HPS/SCW Instruments Data Sheets Rev. 0	3ED1700086	EMF - EJ - Develop and Issue Air BSA/ISA/PSA Instruments Data Sheets Rev. 0

All other terms and conditions remain unchanged.

**(End of Modification)**