

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE	PAGE OF PAGES <b>1</b> OF <b>7</b>
2. AMENDMENT/MODIFICATION NO. <b>412</b>	3. EFFECTIVE DATE (M/D/Y) <b>See Block 16C</b>	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY <b>U.S. Department of Energy Office of River Protection P. O. Box 450, MS H6-60 Richland, WA 99352</b>	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code) <b>Bechtel National, Inc. 2435 Stevens Center Place Richland, WA 99354</b>		9A. AMENDMENT OF SOLICITATION NO.		
		9B. DATED (SEE ITEM 11)		
		10A. MODIFICATION OF CONTRACT/ ORDER NO. <b>DE-AC27-01RV14136</b>		
		10B. DATED (SEE ITEM 13) <b>December 11, 2000</b>		
CODE <b>396A5</b>	FACILITY CODE <b>153392068</b>			

**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. <input checked="" type="checkbox"/> Clause I.82,FAR 52.243-2 Changes – Cost Reimbursement (AUG 1987) – Alternate III (APR 1984)
<input type="checkbox"/>	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).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF:
<input type="checkbox"/>	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.)

Reference Continuation Page(s)

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)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <b>Katie A. Mair Contracting Officer</b>	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <b>Katie Mair</b> (Signature of Contracting Officer)	16C. DATE SIGNED <b>12/21/17</b>
_____ (Signature of person authorized to sign)			

**The purpose of this modification is as follows:**

1. Issue a revision for the Not To Exceed (NTE) value established in the change order for updating the Natural Phenomena Hazards (NPH) Assessment by generating a revised site-specific response analysis and design response spectra for WTP incorporating Hanford site-wide Probabilistic Seismic Hazard Analysis (PSHA) report from PNNL, dated November 21, 2014, incorporated in modification 375 as follows:
  - a. The Contractor is authorized to incur costs up to a NTE value that is changed from \$800,000 by \$300,000 to \$1,100,000 consistent with the other contract terms and conditions and pending definitization of this change. The NTE only applies to the work scope in Section C, *Statement of Work, Standard 3: Design*, paragraph k.
  - b. Contractor shall continue following change order accounting in accordance with Clause I.83, FAR 52.243-6, Change Order Accounting (APR 1984).
  - c. This modification does not add additional funds to the contract. Accordingly, work under the contract, such as that described herein, must be performed within the amount of funds which have been incrementally allotted to the contract in accordance with clause B.3, *Obligation and Availability of Funds and Contract Value*, and clause I.66, FAR 52.232-22 Limitation of Funds (Apr 1984).

**Modification Description:**

1. A revised Not-to-Exceed value of \$1,100,000 is hereby established. As a result, the table in Section B, *Supplies or Services and Prices/Costs*, Section B.3, *Obligation and Availability of Funds and Contract Value*, paragraph (c) is revised as follows:
  - The Cost Category (A) Total Estimated Contract Cost (TECC) in the amount of \$14,082,267,405 is carried forward from Contract Modification 411.
  - The Cost Category (B.1) CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration, Increased by Mod no. 412 value, is \$300,000.
  - The Cost Category (B.1) CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration, Total CLIN Estimated Cost, is increased by \$300,000 from \$6,507,485,535 to \$6,507,785,535.
  - The Revised Total Estimated Contract Cost (TECC) is increased by \$300,000 from \$14,082,267,405 to \$14,082,567,405.

- The Total Estimated Contract Price (TECP) is increased by \$300,000 from \$14,674,607,903 to \$14,674,907,903.

2. The table in Section B, *Supplies or Services and Prices/Costs*, Contract Section B.3 *Obligation and Availability of Funds and Contract Value*, paragraph (c), is deleted in its entirety and replaced in full as follows:

Table B.1 – Total Estimated Contract Price

		Cost			
Total Estimated Contract Cost (TECC) through Mod No. 411					<b>\$14,082,267,405</b>
Total Estimated Contract Cost (412)		CLIN Estimated Cost	Increased by Mod No. 412	Total CLIN Estimated Cost	
B.1	CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration	\$6,507,485,535	\$300,000	\$6,507,785,535	\$300,000
B.2	CLIN 2.0: WTP Facility Modifications Necessary to Support DFLAW				
	Sub-CLIN 2.1: DFLAW Design (Target Cost)	\$75,000,000	\$0	\$75,000,000	\$0
	Sub-CLINs 2.2 /2.3 DFLAW Procurement/ Construction (Previous NTE Values)	\$362,600,000	\$0	\$362,600,000	\$0
B.3	CLIN 3.0 Reserved for HLW Facility	**	0		
B.4	CLIN 4.0: Reserved for PT Facility	**	0		
Revised Total Estimated Contract Cost (TECC) through Mod No. 412					<b>\$14,082,567,405</b>
Fee					
		Available		Earned	Total
Earned before Mod No. 384					
A1	Final Fee Determination – Pre-Mod No. A143			\$102,622,325	
A2	Final Fee Earned Mod No. A143 – Mod No. 384			\$131,573,553	
Fixed Fee Payment (Attachment B-2-C)***		\$0		\$60,000,000	
Pending Activity Milestones (Attachment B-2-B)		\$0		\$6,667,000	
Maximum Available Award Fee (CY 2016–2022) (Attachment B-2-D)		\$47,235,620		\$7,242,000	
CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration					
E1	LBL Construction Complete Performance Based Incentives (Attachment B-2-E)	\$55,575,000		\$12,825,000	
E2	Commission LBL in the DFLAW Configuration Performance Based Incentive (Attachment B-2-F)	\$159,600,000			
E3	Schedule Incentive Hot Commissioning (Attachment B-2-F)	+/- \$60,000,000 (Max)			
E4	Cost Share Incentive (Attachment B-2-G)	+/- \$50,000,000 (Max)			
CLIN 2.1: Performance-Based Incentive for DFLAW Design Completion (Attachment B-2-H)		\$8,000,000		\$1,000,000	
Total Maximum Available Fee****		\$270,410,620			
Total Fee Earned				\$321,929,878	
Total Estimated Contract Price (TECP) (Total Maximum Available Fee + Total Earned Fee + TECC) 412					<b>\$14,674,907,903</b>

\*\* Estimated cost for interim work plans within the agreed funding profile for CLINs 3.0 and 4.0 is included in Total Estimated Contract Cost (TECC).

\*\*\* Payment is in satisfaction of all fee entitlement for work accomplished under the Contract from contract Modification No. A143 through the date of this modification (384) that is not included in A2 above.

\*\*\*\* Exclusive of Cost Share and Schedule Incentives.

3. Contract Section J, *List of Attachments*, Attachment J, *Advance Understanding on Costs*, Table 13-B, *Not-to-Exceeds Not Included in Modification No. A143 Definitization (M155)*, is deleted in its entirety and replaced in full as follows:

<b>13-B. Not-To-Exceeds Not Included in Modification No. A143 Definitization (M155)</b>		
<b>DOCUMENT ID.</b>	<b>TITLE</b>	<b>DEFINITIZATION MODIFICATION NO.</b>
BCP-24590-06-02279	Expansion of DWP Requirements (permit modifications) <b>(122) (130)</b>	A193
ORP 08-NSD-011 (05/20/08) (CCN:179512) TN 24590-06-03487	ORP Direction to Implement New Preliminary Safety Analysis Report (PSAR) Updates <b>(136)</b>	A164
ORP 08-NSD-057 (10/09/08) (CCN:188218) TN 24590-06-03752	Direction to Implement New Safety Classification Process for the Waste Treatment and Immobilization Plant (WTP) (141)	276
ORP 08-NSD-059 (10/15/08) (CCN 188217) TN 24590-06-03753	Direction to Implement New Justification for Continued Design, Procurement, and Installation (JCDPI) (M152)	164
Modification No. M090 & 09-AMD-205 (07/18/08) (CCN: 202423) TN 24590-06-02145 & <b>-02381</b>	Direction to Implement DOE 205.1A, Cyber Security Management Program (155)	217
Modification No. M154 TN 24590-06-04133	Direction to Implement Pretreatment Engineering Platform (PEP) dry layup (155)	167
Modification No. M196 BCP 24590-06-04489 BCP 24590-06-04784 BCP 24590-06-05085	Direction to Implement Multiple Operational Readiness Strategy (218)	282
Modification No. M196 BCP 24590-06-04853	Direction to Implement CXP Equipment Option (218)	317

ORP 10-AMD-139 (05/06/10; CCN: 218244)		
Modification No. 221 ORP 11-WTP-219 (06/17/11; CCN: 236247); Modification No. 247 ORP 11-WTP- 437 (12/01/11; CCN: 242351); Modification No. 264 ORP 12-WTP- 0109 (03/15/12; CCN: 245985); Modification No. 286 ORP 12-WTP- 317 (09/24/12)	Direction to Proceed with Large Scale Testing (221, 247, 264, 286)	299 - 384
Modification No. 273	Direction to participate in the Hanford Site Organizational Climate and Safety Conscious Work Environment (SCWE) Survey	290
Modification No. 245 ORP 11-WTP-429	Direction to proceed with the implementation of DOE Order (O) 420.1B, <i>Facility Safety</i> , Chapter V, <i>Systems Engineer Program</i> . (245)	276
Modification No. 300 ORP 13-CPM- 0099 (05/06/13); Modification No. 304 ORP 13-CPM- 0133 (06/05/13); Modification No. 313 ORP 13-CPM- 0299 (11/25/13)	Direction to Proceed with Full Scale Vessel Testing Program in lieu of the existing Computational Fluid Dynamics and Large Scale Vessel testing Program as a Design Verification Tool (300, 304, 313)	384
Modification No. 329 ORP 14-CPM- 0172	Direction to proceed with Section C, Statement of Work, Standard 3 Design, paragraph (i) Design of BOF Utility Modifications	<b>350</b>
Modification No. 330 ORP 14-CPM- 0181	Direction to proceed with Section C, Statement of Work, Standard 3 Design, paragraph (j) Design of BOF Effluent Management Facility	<b>350</b>
Modification No. 334 ORP 14-CPM- 0228, ORP 15- CPM-0300 (358) 16-CPM-0088 (372)	Direction to proceed with Pretreatment Facility vessel mixing design verification.	384
Modification No. 339 ORP 15-CPM- 0008	Direction to proceed with Section C, Statement of Work, Standard 3 Design, paragraph (k) Design of Balance of Facilities Underground and Site-Wide modifications necessary to support the Direct Feed of LAW (DFLAW)	<b>350</b>

Modification No. 342 ORP 15-CPM-0064, ORP 16-CPM 0012 (364)	Direction to proceed with the implementation of DOE Order 433.1B, Maintenance Management Program for DOE Facilities and DOE/RL-92-36, Hoisting and Rigging Manual. (342)	384
Modification No. 344 ORP 15-CPM-0092	Direction to proceed with initiation of procurement of BOF modifications and LAW Valve Vault materials to support DFLAW; add Interface Control Documents 30 and 31	384
Modification No. 348 ORP 15-CPM-0128	Direction to proceed with initiation of BOF isolation construction to support DFLAW	384
Modification No. 349 ORP 15-CPM-0136	Direction to proceed with the implementation of DOE Order 414.1D, CRD, Chg. 1, Quality Assurance. (349)	
Modification No. 354 ORP 15-CPM-0195, ORP 16-CPM-0154 (380)	Direction to proceed with procurement of Effluent Management Facility (EMF) equipment and effluent transfer lines and limited EMF construction (354)	384
Modification No. 371 ORP-16-CPM-0085, ORP-16-CPM-0091	Conduct supplementary analysis of vessels RLD-VSL-00007 and RLD-VSL-00008 beyond the WTP Code of Record and modify the RLD-VSL-00007 and RLD-VSL-00008 vessel design.	
Modification No. 375 ORP-16-CPM-0111, 17-CPM-0038, (388), <b>ORP-17-CPM-0185 (412)</b>	Update the Natural Phenomena Hazards (NPH) Assessment by generating a revised site-specific response analysis and design response spectra for WTP incorporating Hanford site-wide Probabilistic Seismic Hazard Analysis (PSHA) report from PNNL, dated November 21, 2014. (375)	
Modification No. 381 ORP-16-CPM-0155 (381)	Authorization to proceed with the development of an engineering redraft process for Standard 3: Design (c) (22).	403
Modification No. 385 ORP-16-CPM-0174, ORP-17-CPM-0181 (411)	Authorization to proceed with the engineering redraft process developed in Standard 3, subparagraph (c) (22) to reclassify the required portions of the LAW C5 ventilation system from non-safety to safety significant as described in 24590-LAW-PL-NS-16-0005 Rev. 0, <i>Safety Strategy Summary Document (SSSD) – Oxides of Nitrogen/Melter Offgas Releases</i> .	
Modification 389 17-CPM-0044 (389)	Authorization to proceed with engineering and nuclear safety activities necessary to implement the changes to engineered safety controls documented in the Caustic Safety Strategy Summary Document (SSSD) under Standard 3, subparagraph (c) (24)	
Modification No. 397, ORP-17-CPM-0094	DOE included a deliverable to implement the CGD extent of condition review and impacts in Section C, <i>Statement of Work, Table C.5-1.1. Deliverables, 7.11</i> (397)	
Modification No. 406, ORP-17-CPM-0151 (406)	DOE Updated DOE Order 232.2A as referenced in Section C, Standard 1, (d)(5)(6) and updated Section J deliverables. (406)	

4. All other terms and conditions remain unchanged.

*(End of Modification)*