

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE	PAGE OF PAGES <b>1</b> OF <b>8</b>
2. AMENDMENT/MODIFICATION NO. <b>441</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>		<input type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
CODE 396A5 FACILITY CODE 153392068		<input checked="" type="checkbox"/>	9B. DATED (SEE ITEM 11) <b>December 11, 2000</b>
		<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ ORDER NO. <b>DE-AC27-01RV14136</b>
			10B. DATED (SEE ITEM 13)

**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.**

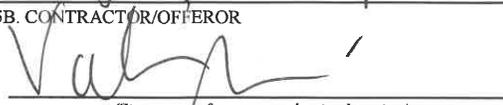
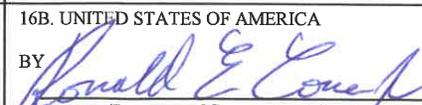
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT ADMINISTRATIVE CHANGES (such as changes 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 checked="" type="checkbox"/>	D. OTHER (Specify type of modification and authority) FAR 43.103 Types of Contract Modifications (a) Bilateral - Mutual Agreement of the Parties

**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.)

See following 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) <b>Project Director Valerie McCain</b>	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <b>Ronald E. Cone Jr. Contracting Officer</b>
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED <b>9 NOV 18</b>
16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED <b>13 NOV 2018</b>

**Purpose of Modification:**

The purpose of this modification is to definitize Request for Equitable Adjustment (REA) 2016-001, Rev 1, *Direction to Evaluate IERT Recommendations for RLD-VSL-00007 & 00008* and update Section B, *Supplies or Services and Prices/Costs*, and Section J, *List of Attachments* as follows:

- The subject modification definitizes the Change Order as stated in Contract Modification No. 371.
- Update Section B, *Supplies or Services and Prices/Costs*, to reflect the negotiated amount of \$2,326,773 for CLIN 3 and \$139,098 for REA Negotiated Fee.
- Update Section J, *List of Attachments, Attachment J*, to recognize this modification as definitizing the Change Order from Modification No. 371.

**Description of Modification:**

1. Contract Section B is revised to reflect the following negotiated settlement resulting from REA 2016-001, *RLD-VSL-00007 & 00008*:

Estimated Contract Cost (B.3, CLIN 3):	\$2,326,773
Minus NTE Value from Mod. No. 371 & 396	<u>(\$2,400,000)</u>
Revised Total Estimated Contract Cost (TECC):	(\$73,227)
REA Settlement Fee:	<u>\$139,098</u>
Revised Total Estimated Contract Price (TECP):	\$65,871

2. As a result of negotiations and definitizing REA 2016-001, 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 revised as follows:

- The Cost Category (A) Total Estimated Contract Cost (TECC) in the amount of \$14,085,459,617 is carried forward from Contract Modification 438.
- The Cost Category (B.3) CLIN 3.0: HLW Facility, Increased by Mod No. 441, is (\$73,227).
- The Cost Category (B.3) CLIN 3.0: HLW Facility, Total CLIN Estimated Cost, is decreased by \$73,227 from \$2,741,670,290 to \$2,741,597,063.
- The Revised Total Estimated Contract Cost (TECC) is decreased by \$73,227 from \$14,085,459,617 to \$14,085,386,390.

- The Cost Category E5: REA Fee Post Mod 384, Increased by Mod No. 441, is \$139,098.
- The Cost Category E5: REA Fee Post Mod 384, Earned Fee, is increased by \$139,098 from \$126,149 to \$265,247.
- The Total Fee Earned is increased by \$139,098 from \$336,786,988 to \$336,926,086.
- The Total Estimated Contract Price (TECP) (Total Maximum Available Fee + Total Earned Fee + TECC) is increased by \$65,871 from \$14,673,859,622 to \$14,673,925,493.

3. 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. 438					<b>\$14,085,459,617</b>
Total Estimated Contract Cost (429)		CLIN Estimated Cost	Increased by Mod No. 441	Total CLIN Estimated Cost	
B.1	CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration	\$6,508,182,340		\$6,508,182,340	
B.2	CLIN 2.0: WTP Facility Modifications Necessary to Support DFLAW				
	Sub-CLIN 2.1: DFLAW Design (Target Cost)	\$75,058,200		\$75,058,200	
	Sub-CLINs 2.2 /2.3 DFLAW Procurement/ Construction	\$363,911,297 <small>(Previous NTE Values)</small>		\$363,911,297	
B.3	CLIN 3.0 HLW Facility	\$2,741,670,290	(\$73,227)	\$2,741,597,063	(\$73,227)
B.4	CLIN 4.0: PT Facility	\$4,396,637,490		\$4,396,637,490	
Revised Total Estimated Contract Cost (TECC) through Mod No. 441					<b>\$14,085,386,390</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)		\$39,363,017		\$11,047,961	
CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration					
E1	LBL Construction Complete Performance Based Incentives (Attachment B-2-E)	\$51,300,000		\$17,100,000	
E2	Commission LBL in the DFLAW Configuration Performance Based Incentive (Attachment B-2-F)	\$152,950,000		\$6,650,000	

**Contract No. DE-AC27-01RV14136  
Modification No. 441  
SF-30 Continuation**

		Cost			
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)			
E5	REA Fee Post Mod 384 (441)		\$139,098	\$265,247	\$139,098
CLIN 2.1: Performance-Based Incentive for DFLAW Design Completion (Attachment B-2-H)		\$8,000,000		\$1,000,000	
Total Maximum Available Fee****		<b>\$251,613,017</b>			
Total Fee Earned (441)				<b>\$336,926,086</b>	
Total Estimated Contract Price (TECP) (Total Maximum Available Fee + Total Earned Fee + TECC) (441)					<b>\$14,673,925,493</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.

4. The table in Section B, *Supplies or Services and Prices/Costs*, Contract Section B.12, Attachment B-2-I, REA Fee Post Mod 384, is revised to add the REA for RLD 7 & 8 to the table as follows:

REA Number and REA Title	Contract Mod Recognizing Definitization	Dollar Value of Fee Negotiated
REA 2017-002 EMF Differing Subsurface Conditions	420	\$40,522
REA 2016-002 Probabilistic Seismic Hazards Analysis (PSHA) Assessment	429	\$85,627
REA 2016-001 Rev 1 Direction to Evaluate IERT Recommendations for RLD-VAL-00007 & 00008	441	\$139,098
<b>Total</b>		<b>\$265,247</b>

5. 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:

**13-B. Not-To-Exceeds Not Included in Modification No. A143 Definitization (M155)**

<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 ORP 10-AMD-139 (05/06/10; CCN: 218244)	Direction to Implement CXP Equipment Option (218)	317
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-	Direction to Proceed with Large Scale Testing (221, 247, 264, 286)	299 - 384

0109 (03/15/12; CCN: 245985); Modification No. 286 ORP 12-WTP- 317 (09/24/12)		
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.	441
Modification No. 375 ORP-16-CPM-0111, 17-CPM-0038, (388), ORP-17-CPM-0185 (412)	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)	429
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> .	426
Modification 389 17-CPM-0044 (389), 18-CPM-0105 (428)	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)	433
Modification No. 397, ORP-17-CPM-0094; 18-CPM-0143 (438)	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)	
Modification No. 415, ORP-18-CPM-0004, 18-CPM-0105 (428)	CGD Implementation Plan for Parking Lot Items 1, 2, 7, 9, 12 and 17 in Section C, Statement of Work, Standard 7, Environment, Safety, Quality, and Health, (3) Quality Assurance, (ii), d.	
Modification No. 432, ORP-18-CPM-0123 (432)	Authorized to perform Design and Procurement of the Actuated On/Off Valve as referenced in Section C, Statement of Work, Subsection C.7 Facility Specification, paragraph (a) (3)	

6. **Contractor’s Statement of Release:** In consideration of the Modification 441, agreed to herein as complete equitable adjustment for the Contractor’s Request for Equitable

Adjustment (REA) for 2016-001, RLD-VSL-00007 & 00008, 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 changes as noted in the modification.

**All other terms and conditions remain unchanged.**

**(End of Modification)**