

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>	1. CONTRACT ID CODE	PAGE <b>1</b>	OF	PAGES <b>6</b>
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2. AMENDMENT/MODIFICATION NO. <b>371</b>	3. EFFECTIVE DATE (M/D/Y) <b>See Block 16C</b>	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
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6. ISSUED BY <b>U.S. Department of Energy Office of River Protection P. O. Box 450, MS H6-60 Richland, WA 99352</b>	7. ADMINISTERED BY (If other than Item 6)
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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.
	<input type="checkbox"/>	9B. DATED (SEE ITEM 11)
	<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ ORDER NO. <b>DE-AC27-01RV14136</b>
	<input checked="" type="checkbox"/>	10B. DATED (SEE ITEM 13) <b>December 11, 2000</b>
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.
<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 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)

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>Ronald E Cone Jr. Contracting Officer</b>		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		_____ (Signature of Contracting Officer)	

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Continued)

**Purpose of Modification:**

The purpose of this modification is to make the following changes:

1. Section C, *Statement of Work*, is revised to conduct supplementary Vessel Analysis with respect to the High Level Waste Facility black cell vessels RLD-VSL-00007 and RLD-VSL-00008, per recommendation of the Independent Expert Review Team (IERT), modify the design of these vessels as necessary, and incorporate fabrication risk mitigation strategies.

This change is based on ORP letter from R.L. Dawson and W.F. Hamel, ORP-WTP, J.M. St. Julian, BNI, "Direction to Evaluate Recommendations from the Bechtel National, Inc. Chartered Independent Expert Review Team on Design and Fabrication of Vessels RLD-VSL-00007 and RLD-VSL-00008," 15-WTP-0099, dated September 2, 2015. In this letter, BNI is directed to evaluate the IERT recommendations in the vessels RLD-VSL-00007 and RLD-VSL-00008 and modify the vessel design as necessary.

2. The Contractor is directed to proceed with the work scope in Section C, *Statement of Work, Standard 3 Design*, and paragraph (j) below. The contractor is authorized to incur costs up to a not-to-exceed (NTE) value of \$1,500,000 consistent with the other contract terms and conditions and pending definitization of this change.
3. Negotiations will commence within 90 days of the date of this change order. A bi-lateral modification definitizing this change order shall be executed as soon as possible after the date of the change order, not to exceed 180 days.
4. The Contractor shall provide change order accounting in accordance with Clause I.83, FAR 52.243-6, Change Order Accounting (APR 1984).
5. 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.2, *Obligation and Availability of Funds and Contract Value*, and clause I.66, FAR 52.232-22 Limitation of Funds (Apr 1984).

**Modification Description**

1. Section C, *Statement of Work, Standard 3 Design*, is revised to incorporate the following language:  
(j) Supplemental analysis of HLW vessels RLD-VSL-00007 and RLD-VSL-00008:

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 as follows:

- (1) Perform supplementary structural analysis to the requirement of ASME BPVC Section VIII, Division 2 (2013), specifically:
    - a. Perform Fatigue Analysis using Structural Stress method (SSM).
    - b. Perform Buckling analysis (both global and local)
    - c. Modify the design, including all applicable models, drawings, calculations, and purchase orders as a result of the supplementary analysis.
  - (2) Revise the process and the mechanical cyclic calculations to reduce the number of vessel Pulse Jet Mixer (PJM) operations to mitigate the risk of design changes to the ongoing fabrication.
  - (3) Increase the PJM shell thickness, as necessary, to mitigate the risk of buckling failure.
2. A Not-to-Exceed value of \$1,500,000 is hereby established. As a result, the table in Section B, *Supplies or Services and Prices/Costs*, Section B.2, *Obligation and Availability of Funds and Contract Value*, paragraph (c) is revised as follows:
- The Total Estimated Contract Cost (TECC) is increased by \$1,500,000, from \$10,854,733,790 to \$10,856,233,790.
  - The Total Estimated Contract Price (TECP) is increased by \$1,500,000, from \$11,492,600,886 to \$11,494,100,886.
3. Section B, *Supplies or Services and Prices/Costs*, is updated to make the following change:
- a. The table in Section B, *Supplies or Services and Prices/Costs*, Contract Clause B.2, *Obligation and Availability of Funds and Contract Value*, paragraph (c) is deleted in its entirety and replaced in full as follows:

<b>Cost:</b>					
	A	Total Estimated Contract Cost (TECC) through <b>Mod 371</b>			<b><u>\$10,856,233,790</u></b>
	B	Total Estimated Contract Cost <b>(350)</b>			
		B.1	CLIN 2: DFLAW Facility Modifications <b>(350)</b>	TBD	
			SUB-CLIN 2.1: DFLAW Design (Target Cost)	\$75,000,000	\$42,568,556 *
			<b>Revised Total Estimated Contract Cost through <b>Mod 371</b></b>		<b><u>\$10,898,802,346</u></b>
<b>Fee:</b>					
	A	Final Fee Determination – Pre-Mod No. A143		\$102,622,325	

	B	Maximum Available Award Fee (See Table B-2-B-1)		\$105,676,215	
	B.1	Project Management Incentive	\$63,630,997		
	B.2	Cost Incentive	\$36,647,560		
	B.3	REA Settlement	\$5,397,658		
	C	Schedule Incentive Fee		\$227,000,000	
	C.1	Activity Milestone Completion	\$173,000,000		
	C.2	Facility Milestone Completion	\$54,000,000		
	D	Operational Incentive Fee		\$91,000,000	
	D.1	Cold Commissioning	\$45,000,000		
	D.2	Hot Commissioning	\$46,000,000		
	E	Enhancement Incentive Fee		\$60,000,000	
	E.1	Enhanced Plant Capacity	\$15,000,000		
	E.2	Sodium Reduction	\$15,000,000		
	E.3	Enhanced Plant Turnover	\$15,000,000		
	E.4	Sustained Production Achievement	\$15,000,000		
	F	Performance-Based Incentive for DFLAW Design Completion (350)		\$9,000,000	
		<b>Total Maximum Available Fee (346) (350) (369)</b>			<b>\$595,298,540</b>
			<b>Total Estimated Contract Price (TECP) (371)</b>		<b><u>\$11,494,100,886</u></b>

\* Sub-CLIN 2.1 DFLAW (Target Cost) amount decreased by total amount of Change Orders 329, 330 & 339 (\$32,431,444) definitized in Modification 350. \$75,000,000 - \$32,431,444 = \$42,568,556.

4. 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) (M122) (M130)	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 (M136)	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) (M141)	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)	A164

Modification M090 & 09-AMD-205 (07/18/08) (CCN 202423)  TN 24590-06-02145 & -02381	Direction to Implement DOE 205.1A, Cyber Security Management Program (M155)	217
Modification M154  TN 24590-06-04133	Direction to Implement Pretreatment Engineering Platform (PEP) dry layup (M155)	A167
Modification M196 BCP 24590-06-04489 BCP 24590-06-04784 BCP 24590-06-05085	Direction to Implement Multiple Operational Readiness Strategy (218)	282
Modification M196 BCP 24590-06-04853 ORP 10-AMD-139 (05/06/10; CCN 218244)	Direction to Implement CXP Equipment Option (218)	317
Modification 221 <b>ORP 11-WTP-219 (06/17/11; CCN 236247);</b> <b>Modification 247 ORP 11-WTP-437 (12/01/11; CCN 242351);</b> <b>Modification 264 ORP 12-WTP-0109 (03/15/12; CCN 245985);</b> <b>Modification 286 ORP 12-WTP-317 (09/24/12)</b>	Direction to Proceed with Large Scale Testing (MOD 221, MOD 247, MOD 264, MOD 286)	299 - Partial
Modification 273	Direction to participate in the Hanford Site Organizational Climate and Safety Conscious Work Environment (SCWE) Survey	290
Modification 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 300 ORP 13-CPM-0099 (05/06/13); Mod 304 ORP 13-CPM-0133 (06/05/13); Modification 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)	
Modification 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 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 334 ORP 14-CPM-0228, ORP 15-CPM-0300 (358)	Direction to proceed with Pretreatment Facility vessel mixing design verification.	
Modification 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 342 ORP 15-CPM-0064, ORP 16-CPM 0012 (364)	Direction to proceed with the implementation of DOE Order (O) 433.1B, Maintenance Management Program for DOE Facilities and DOE/RL-92-36, Hoisting and Rigging Manual. (342)	
Modification 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	
Modification 348 ORP 15-CPM-0128	Direction to proceed with initiation of BOF isolation construction to support DFLAW	
Modification 349 ORP 15-CPM-0136	Direction to proceed with the implementation of DOE Order (O) 414.1D, CRD, Chg. 1, Quality Assurance. (349)	
Modification 354 ORP 15-CPM-0195	Direction to proceed with procurement of Effluent Management Facility (EMF) equipment and effluent transfer lines and limited EMF construction (354)	
Modification 371 ORP-CPM-0085	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.	

6. All other terms and conditions remain unchanged.

**(End of Modification)**