

| | | | |
|---|---|----------------------------------|--------------------------------|
| 2. AMENDMENT/MODIFICATION NO. 397 | 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 | <input type="checkbox"/> | 9A. AMENDMENT OF SOLICITATION NO. |
| | | 9B. DATED (SEE ITEM 11) |
| | <input checked="" type="checkbox"/> | 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)

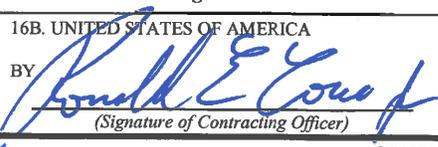
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS SET FORTH IN ITEM 14.

| | |
|-------------------------------------|---|
| 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. |
| <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) 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) | 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ronald E. Cone Jr. Contracting Officer |
| 15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign) | 15C. DATE SIGNED |
| | 16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer) |
| | 16C. DATE SIGNED 7-6-2017 |

Purpose of Modification:

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

1. Section C, *Statement of Work, Table C.5-1.1. Deliverables*, is revised to incorporate the following:

| | | | | | | |
|---------------|---|-------------------------|----------------------------|-----|--------|---|
| 7.11 (397) | Extent of Condition review of LBL & DFLAW Per 24590-WTP-PL-ENG-16-0003, Rev 0, "Extent of Condition Plan for Review of CGD Documentation for RCA-MGT-00338 CA, Section 7" | Standard 7(e) (3)(v) | C for interim/ A for final | D/E | COR/CO | Annually starting 12/31/2017 and ending 12/31/2021, as required |
|---------------|---|-------------------------|----------------------------|-----|--------|---|

2. The Contractor is directed to proceed with the work scope in Section C, *Statement of Work, Table C.5-1.1. Deliverables*. The contractor is authorized to incur costs up to a Not-to-exceed (NTE) value of \$ 1,000,000 consistent with the other contract terms and conditions and pending definitization of this change.
3. Section J, List of Attachments, Attachment J, Advance Understandings on Costs, Sub-Attachment C, List of Exclusions from Release and Waiver of Claims, is modified to add a notation that item 2. Commercial Grade Dedication (CGD), the 4th bullet is revised to indicate the Mutually Agreed to revision of DOE's direction on the extent of condition reviews.
4. BNI shall submit within 90 days of date of this modification a detailed technical and price proposal. Negotiations will commence within 140 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.
5. Contractor shall provide change order accounting in accordance with Clause I.83, FAR 52.243-6, Change Order Accounting (APR 1984).
6. 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. Section C, *Statement of Work, Table C.5-1.1. Deliverables*, is revised to incorporate the following:

| | | | | | | |
|---------------|---|-------------------------|----------------------------|-----|--------|---|
| 7.11 (397) | Extent of Condition review of LBL & DFLAW Per 24590-WTP-PL-ENG-16-0003, Rev 0, "Extent of Condition Plan for Review of CGD Documentation for RCA-MGT-00338 CA, Section 7" | Standard 7(e) (3)(v) | C for interim/ A for final | D/E | COR/CO | Annually starting 12/31/2017 and ending 12/31/2021, as required |
|---------------|---|-------------------------|----------------------------|-----|--------|---|

2. A Not-to-Exceed value of \$1,000,000 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 revised Total Estimated Contract Cost (TECC) is increased by \$1,000,000 from \$14,080,957,190 to \$14,081,057,190.
- The Total Estimated Contract Price (TECP) is increased by \$1,000,000 from \$14,676,255,688 to \$14,677,255,688.

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 (a), 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. 396 | | | | | \$14,080,957,190 |
| Total Estimated Contract Cost (397) | | CLIN Estimated Cost | Increased by Mod No. 397 | Total CLIN Estimated Cost | |
| B.1 | CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration | \$6,506,175,320 | \$1,000,000 | \$6,506,275,320 | \$1,000,000 |
| 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 | \$362,600,000 (Previous NTE Values) | \$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 | | |

| | | Cost | | |
|--|--|------------------------|----------------------|-------------------------|
| Revised Total Estimated Contract Cost (TECC) through Mod No. 397 | | | | \$14,081,057,190 |
| 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) | | \$57,435,620 | | |
| CLIN 1.0: Design, Construct, and Commission LBL in the DFLAW Configuration | | | | |
| E1 | LBL Construction Complete Performance Based Incentives (Attachment B-2-E) | \$64,125,000 | \$4,275,000 | |
| 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**** | | \$289,160,620 | | |
| Total Fee Earned | | | \$306,137,878 | |
| Total Estimated Contract Price (TECP) (Total Maximum Available Fee + Total Earned Fee + TECC) 397 | | | | \$14,677,255,688 |

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:

| 13-B. Not-To-Exceeds Not Included in Modification No. A143 Definitization (M155) | | |
|--|---|---------------------------------|
| DOCUMENT ID. | TITLE | DEFINITIZATION MODIFICATION NO. |
| BCP-24590-06-02279 | Expansion of DWP Requirements (permit modifications) (122) (130) | 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 (136) | 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) | Direction to Implement New Justification for Continued Design, Procurement, and | 164 |

| | | |
|--|---|-----------|
| (CCN 188217) TN 24590-06-03753 | Installation (JCDPI) (M152) | |
| Modification No. M090 & 09-AMD-205 (07/18/08) (CCN: 202423) TN 24590-06-02145 & -02381 | 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-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, Chapter V, Systems Engineer Program.</i> (245) | 276 |
| Modification No. 300 ORP 13-CPM-0099 (05/06/13); Modification No. 304 ORP 13-CPM- | 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 |

| | | |
|--|---|-----|
| 0133 (06/05/13); Modification No. 313 ORP 13-CPM- 0299 (11/25/13) | | |
| 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 | 350 |
| 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 | 350 |
| 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) | 350 |
| 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) | 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). | |
| Modification No. 385 ORP-16-CPM-0174 (385) | 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) | |

4. Section J, List of Attachments, Attachment J, Advance Understandings on Costs, Sub-Attachment C, List of Exclusions from Release and Waiver of Claims, is modified to add a notation that item 2. Commercial Grade Dedication (CGD), the 4th bullet is revised to indicate the Mutually Agreed to revision of DOE’s direction on the extent of condition reviews.

1. Commercial Grade Dedication (CGD). The settlement for Modification (384) includes implementation of changes in the form of CGD documentation as described in BNI Corrective Action Plan (CAP) Actions 4-9 and actions to implement the new documentation expectations on all LBL and DFLAW equipment, instruments and bulk materials that have not yet been received and installed, including any vendor impacts due to delays and changes in requirements.

The included BNI CAP Actions 4-9 are set forth in Sub-Attachment C, Table 1 (Included CAP Actions 4-9) (6 pages)

Cost and schedule impacts associated with CGD requirements or expectations extending beyond CAP Actions 4-9 are excluded. Specifically excluded are cost and schedule impacts arising from:

- the 19 “parking lot items”; are set forth in Sub-Attachment C, Table 2 (19 CGD Parking Lot Items) (3 pages)
- any revision to the final root cause analysis (24590-WTP-RCA-MGT-15-0338, Rev. 2);
- benchmark plans; (Definition- Benchmark CGD plans” to be developed jointly by BNI and ORP (as an outcome of the CGD Working Group chartered in October

2015) as general examples for future CGD plans, to demonstrate implementation of current CGD requirements in addition to ORP directed changes relative to the 19 parking lot items.)

- the CGD extent of condition review and any related impacts to received or installed equipment, instruments, and materials.

(Record Note: DOE included a deliverable to implement the CGD extent of condition review and impacts in Section C, Statement of Work, Table C.5-1.1. Deliverables, 7.11) (397)

5. All other terms and conditions remain unchanged.

(End of Modification)