### AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

<table>
<thead>
<tr>
<th>1. CONTRACT ID CODE</th>
<th>PAGE OF PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>M009</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. AMENDMENT/MODIFICATION NO.</th>
<th>3. EFFECTIVE DATE (M/D/Y)</th>
<th>4. REQUISITION/PURCHASE REQ. NO.</th>
<th>5. PROJECT NO. (If applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M009</td>
<td>See Block 16C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. ISSUED BY</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Department of Energy</td>
<td>4UWU0</td>
</tr>
<tr>
<td>Office of River Protection</td>
<td></td>
</tr>
<tr>
<td>P. O. Box 450, MS H6-60</td>
<td></td>
</tr>
<tr>
<td>Richland, WA 99352</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. ADMINISTERED BY (If other than Item 6)</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code)</th>
<th>9A. AMENDMENT OF SOLICITATION NO.</th>
<th>9B. DATED (SEE ITEM 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington River Protection Solutions LLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.O. Box 73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>720 Park Blvd, Boise, ID. 83729-0001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10A. MODIFICATION OF CONTRACT/ORDER NO.</th>
<th>10B. DATED (SEE ITEM 13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE-AC27-08RV14800</td>
<td>May 29, 2008</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. THIS ITEM APPLIES TO AMENDMENTS OF SOLICITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td>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; (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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12. ACCOUNTING AND APPROPRIATION DATA (If required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS SET FORTH IN ITEM 14.</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td>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).</td>
</tr>
<tr>
<td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF: Section B Clause B.7 (a)(b) Fee Structure</td>
</tr>
<tr>
<td>D. OTHER (Specify type of modification and authority)</td>
</tr>
</tbody>
</table>

| E. IMPORTANT: Contractor is not, is required to sign this document and return _2_ copies to the issuing office. |

<table>
<thead>
<tr>
<th>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>See the following page(s)</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>15A. NAME AND TITLE OF SIGNER (Type or print)</th>
<th>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</th>
</tr>
</thead>
<tbody>
<tr>
<td>William J. Johnson, President and Project Manager</td>
<td>Joseph C. Poniatowski, Contracting Officer</td>
</tr>
<tr>
<td>Washington River Protection Solutions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15B. CONTRACTOR/OFFEROR</th>
<th>15C. DATE SIGNED</th>
<th>15D. AMENDMENT OF SOLICITATION NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORIGINAL SIGNED BY</td>
<td>1/14/09</td>
<td>See Block 16C</td>
</tr>
<tr>
<td>(Signature of person authorized to sign)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16B. UNITED STATES OF AMERICA</th>
<th>16C. DATE SIGNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORIGINAL SIGNED BY</td>
<td>1/14/09</td>
</tr>
<tr>
<td>(Signature of Contracting Officer)</td>
<td></td>
</tr>
</tbody>
</table>
A. The purpose of this modification is to incorporate Performance Based Incentives (PBI’s) in accordance with Section B clause B.7 (a)(b) Fee Structure.

B. Description of Modification

i. Revise Section B, Table B.4-1 by deleting “TBD by DOE” and replacing with “12,400”; deleting “Total” and replacing with “447,548”. See attached change page B-5.

ii. Revise Section J – List of Attachments, Table of Contents Attachment J.4 Performance Evaluation and Measurement Plan (PEMP), by deleting “0” and replacing with “1”; deleting “9” and replacing with “51”


D. All changes are noted by a vertical line in the right hand margin.
### Table B.4-1, Contract Cost and Contract Fee

($'s in K)

<table>
<thead>
<tr>
<th>CLIN 1 Base Operations</th>
<th>Transition Period – FY 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-CLIN 1.1</td>
<td>5,494</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
</tr>
<tr>
<td>Contract Cost</td>
<td>5,494</td>
</tr>
<tr>
<td>Contract Price</td>
<td>5,494</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Base Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>FY 2009</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td><strong>CLIN 1 Base Operations</strong></td>
</tr>
<tr>
<td>Sub-CLIN 1.2</td>
</tr>
<tr>
<td>Sub-CLIN 1.3</td>
</tr>
<tr>
<td><strong>CLIN 2 SST Retrieval and Closure</strong></td>
</tr>
<tr>
<td>Sub-CLIN 2.1</td>
</tr>
<tr>
<td>Sub-CLIN 2.2</td>
</tr>
<tr>
<td><strong>CLIN 3 WTP Support</strong></td>
</tr>
<tr>
<td>Sub-CLIN 3.1</td>
</tr>
<tr>
<td>Sub-CLIN 3.2</td>
</tr>
<tr>
<td>Sub-CLIN 3.3</td>
</tr>
<tr>
<td><strong>CLIN 4 Supplemental Treatment</strong></td>
</tr>
<tr>
<td>Sub-CLIN 4.1</td>
</tr>
<tr>
<td>Sub-CLIN 4.2</td>
</tr>
<tr>
<td>Sub-CLIN 4.3</td>
</tr>
<tr>
<td>Sub-CLIN 4.4</td>
</tr>
<tr>
<td>Sub-CLIN 4.5</td>
</tr>
<tr>
<td><strong>CLIN 5 Early Feed and Operation of WTP LAW Facility</strong></td>
</tr>
<tr>
<td>Sub-CLIN 5.1</td>
</tr>
<tr>
<td>Sub-CLIN 5.2</td>
</tr>
<tr>
<td>Sub-CLIN 5.3</td>
</tr>
<tr>
<td>Sub-CLIN 5.4</td>
</tr>
<tr>
<td><strong>CLIN 6 Pension and Welfare Plans</strong></td>
</tr>
<tr>
<td>Sub-CLIN 6.1</td>
</tr>
<tr>
<td>Sub-CLIN 6.2</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
</tr>
<tr>
<td>Contract Cost</td>
</tr>
<tr>
<td>Available Fee</td>
</tr>
<tr>
<td>Contract Price</td>
</tr>
</tbody>
</table>

* Note – Available fee does not include “Stretch Fee”.
### PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

### SECTION J -- LIST OF ATTACHMENTS

#### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Attachment Number</th>
<th>Title of Attachment</th>
<th>Revision Number</th>
<th>Number of Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.1</td>
<td>ABBREVIATIONS AND ACRONYM LIST</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>J.2</td>
<td>REQUIREMENTS SOURCES AND IMPLEMENTING DOCUMENTS</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>J.3</td>
<td>HANFORD SITE SERVICES AND INTERFACE REQUIREMENTS MATRIX</td>
<td>0</td>
<td>68</td>
</tr>
<tr>
<td>J.4</td>
<td>PERFORMANCE EVALUATION AND MEASUREMENT PLAN (PEMP)</td>
<td>1</td>
<td>51</td>
</tr>
<tr>
<td>J.5</td>
<td>PERFORMANCE GUARANTEE AGREEMENT</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>J.6</td>
<td>SMALL BUSINESS SUBCONTRACTING PLAN</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>J.7</td>
<td>SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM TARGETS</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>J.8</td>
<td>ADVANCE UNDERSTANDING OF COSTS</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>J.9</td>
<td>SPECIAL FINANCIAL INSTITUTION ACCOUNT AGREEMENT</td>
<td>N/A</td>
<td>5</td>
</tr>
<tr>
<td>J.10</td>
<td>WAGE DETERMINATIONS – SERVICE CONTRACT ACT (SCA) AND DAVIS-BACON ACT</td>
<td>1</td>
<td>48</td>
</tr>
<tr>
<td>J.11</td>
<td>SUPPLEMENTAL WORK DESCRIPTION TABLES</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>J.12</td>
<td>GOVERNMENT-FURNISHED SERVICES AND INFORMATION (GFS/I)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>J.13</td>
<td>HANFORD SITE STRUCTURES LIST</td>
<td>0</td>
<td>66</td>
</tr>
<tr>
<td>J.14</td>
<td>HANFORD WASTE SITE ASSIGNMENT LIST</td>
<td>0</td>
<td>132</td>
</tr>
</tbody>
</table>
ATTACHMENT J.4

PERFORMANCE EVALUATION AND MEASUREMENT PLAN (PEMP)
PERFORMANCE EVALUATION
AND
MEASUREMENT PLAN (PEMP)
FOR THE
TANK OPERATIONS CONTRACT
Rev 1
Performance Evaluation and Measurement Plan

The Performance Evaluation and Measurement Plan (PEMP) detail the administration of performance measures and allocation of Total Available Fee as defined in Section B, Supplies or Services and Prices/Costs.

1. PERFORMANCE MEASURES

Each performance measure will set forth the specific requirements, criteria and/or specifications for acceptable performance of an outcome and the amount of fee assigned to the individual performance measure (See PEMP Table 4-1 for a summary of work requirements that may be targeted for performance measure's).

2. ALLOCATION OF AVAILABLE FEE

DOE will heavily weight the assignment of fee toward meeting production goals, such as treatment of waste and end-product goals, such as the retrieval of single-shell tank (SST) waste, treatment of tank waste, closure of SSTs, closure of SST Farms and full operational status constructed facilities.

3. PERFORMANCE MEASURE FEE STRUCTURE METHODS

Each performance measure may have a distinct fee structure to incentivize maximum performance and resource utilization by the Contractor. Individual performance measures may require the contractor to exceed approved baseline performance to earn 100 percent (%) of the fee allocated to that performance measure. DOE is not limited to the following list of Fee Structure Methods and may combine elements of multiple fee structures. Regardless of the Fee Structure Method used, payment of fee is subject to the fee reduction terms of this Contract, and Fee Determining Official (FDO) approval that the Contractor has achieved the stated outcome for the specific performance measure.

(a) **Straight-line Method:** This method provides a 100% incremental fee for completion of the performance measure prior to the expiration of the Contract period.

(b) **Declining Method:** This method provides 100% incremental fee for completion of the performance measure by a specific date and/or milestone, but the percentage is reduced incrementally beyond that event. The specific percentage of reduction and corresponding time or specific milestones triggering the reductions are defined within the performance measure.

(c) **Terminal Method:** This method provides 100% incremental fee for completion of the performance measure prior to a specific date and/or milestone; however, the Contractor will forfeit 100% of the fee allocated to the performance measure for completion of the performance measure after the passing of the specific date and/or milestone as defined within the performance measure.
(d) **Provisional Dependent Method:** This method provides the Contractor the opportunity to earn only *Provisional Fee* until completion of a specific milestone, a separate performance measure or multiple performance measure's, upon which the fee becomes progress or final. For example, the Contractor may complete performance measure-1, earn 90% of the fee as *Provisional*, then complete performance measure-2 and earn the associated fee for performance measure-2, as well as convert the *Provisional Fee* earned for performance measure-1 to an incremental fee.

(e) **Subjective Method:** This method provides the Contractor the opportunity to earn up to 100% fee for performance of Contract requirements based on subjective criteria as determined by DOE.

(f) **Target Method:** This method provides for the initially negotiated fee to be adjusted later by a formula based on the relationship of performance measures against the baseline. This method specifies a target baseline performance, a target fee, minimum and maximum fees, and a fee adjustment formula. After performance, the fee payable is determined in accordance with the formula. The formula provides, within limits, for increases in fee above target fee when baseline performance is exceeded, and decreases in fee below target fee when baseline performance is not achieved. This increase or decrease is intended to provide an incentive for the Contractor to management the Contract effectively.

4. Table 4.1 summarizes the Contract work requirements that may become fee-bearing via performance measures. This table establishes a conceptual framework as a basis for development of future performance measures in accordance with Section B Clause entitled, *Fee Structure*.

5. Table 4.1 includes DOE's estimated range of available fee allocation. This table will be used as a guide in establishing available fee allocation among performance incentives for the work contained in each Sub-CLIN. This table is only a guide and actual fee allocation during contract performance will vary. Individual performance incentives within each Sub-CLIN will be assigned fee based on performance risk and other factors. If the workscope within a Sub-CLIN is impacted by a change in the WBS, the estimated available fee allocation percentages may be adjusted at the unilateral discretion of the Contracting Officer.
Table 4.1, Summary of Work Requirements

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>OUTCOMES¹</th>
<th>POTENTIAL MEASURES</th>
<th>Estimated Weight of Total Available Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLIN 1 – Base Operations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| C.2.1.1   | Safe and efficient transition of workscope from the Tank Farm Contract to the Tank Operations Contract | • No fee attached directly to this scope  
• Required to successfully perform other CLINs | No Fee |
| Sub-CLIN 1.1 Transition | | | |
| C.2.1.2   | Safe, efficient, and compliant management of the tank waste inventory and all physical systems to support River Protection Project (RPP) System Plan requirements | • Increased operability and availability of tank farm infrastructure  
• Safe and efficient tank farm operations  
• Double-Shell Tank (DST) life baselined and extended  
• Reduction of sodium addition to DSTs  
• Baseline costs reduced | 5% |
| Sub-CLIN 1.2 Safe, Compliant Operations | | | |
| C.2.1.3   | Optimal facility availability to support timely, cost-effective laboratory analysis | • No fee attached directly to this scope  
• Required to successfully perform CLINs 1.2, 2.1 and 2.2 | No Fee |
| Sub-CLIN 1.3 Analytical Laboratory Support | | | |
| **CLIN 2 – Single-Shell Tank (SST) Retrieval and Closure** | | | |
| C.2.2.1   | Tank wastes are safely removed from selected single-shell tanks (SSTs) to the extent required in the Tri-Party Agreement (TPA), thereby facilitating SST farm closure while assisting with the optimization of DST space and staging of tank waste for future treatment | • Retrieve waste from SSTs; B-104, B-201, B-202, B-203, B-204, BY-101, C-101, C-102, C104, C105, C-107, C-110, C-111, C-112, S105, S-109, T-104, T-110, T-111, T-201, T-202, T-203, T-204, U-103, U-201, U-202, U-203, U-204, etc.  
• Volume of waste removed  
• Number of tanks ready for closure | 18% |
| Sub-CLIN 2.1 Single-Shell Tank Retrieval | | | |

¹ Any features of the Offeror’s proposed strategy and approach may be implemented as first and subsequent years’ performance measures for the PEMP.
<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>OUTCOMES</th>
<th>POTENTIAL MEASURES</th>
<th>Estimated Weight of Total Available Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.2.2.2</td>
<td>Closure of the waste management areas containing the SST farms</td>
<td>• Resource Conservation and Recovery Act of 1976 (RCRA)-compliant closure of C Tank Farm Waste Management Area  &lt;br&gt; • RCRA-compliant closure of additional Waste Management Areas</td>
<td>6%</td>
</tr>
<tr>
<td>Sub-CLIN 2.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Shell Tank</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm (Waste Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLIN 3 – Waste Treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Immobilization Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(WTP) Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2.3.1</td>
<td>Implementation of the RPP System Plan and performance of required waste</td>
<td>• Operability and availability of waste delivery systems as required &lt;br&gt; • Tank waste staged for delivery  &lt;br&gt; • Delivery of tank waste</td>
<td>4%</td>
</tr>
<tr>
<td>Sub-CLIN 3.1</td>
<td>deliver feed delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment Planning, Waste</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed Delivery, and WTP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2.3.2</td>
<td>Evaluate the operational readiness of the WTP construction project to</td>
<td>• Five WTP topical reports signed by the Responsible Corporate Official</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Sub-CLIN 3.2</td>
<td>support safe, efficient turnover of completed facilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WTP Operational</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Readiness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2.3.3</td>
<td>The capability to safely store IHLW and the means to prepare Hanford</td>
<td>• Completion of IHLW storage and shipping facility design &lt;br&gt; • Completion of IHLW &lt;br&gt; storage and shipping facility construction and permitting &lt;br&gt; • Successful completion of Critical Decision (CD)-0 &lt;br&gt; (CD)-0 &lt;br&gt; through CD-4 and Operational Readiness Review &lt;br&gt; • IHLW storage and shipping facility is operational and receiving IHLW</td>
<td>2%</td>
</tr>
<tr>
<td>Sub-CLIN 3.3</td>
<td>IHLW and Spent Nuclear Fuel for compliant shipment to the Yucca Mountain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immobilized High Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste (IHLW) Storage and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shipping Facility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLIN 4 – Supplemental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2.4.1</td>
<td>An operable pilot scale bulk vitrification system that will enable DOE to</td>
<td>• Completion of DBVS Design &lt;br&gt; • Completion of DBVS Construction and permitting &lt;br&gt; • Operation of DBVS &lt;br&gt; • Completion of DBVS testing objectives</td>
<td>4%</td>
</tr>
<tr>
<td>Sub-CLIN 4.1</td>
<td>determine if bulk vitrification is a viable supplemental Low Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstration Bulk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vitrification System (DBVS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction and Operations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(DBVS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OBJECTIVE</td>
<td>OUTCOMES</td>
<td>POTENTIAL MEASURES</td>
<td>Estimated Weight of Total Available Fee</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
<td>--------------------</td>
<td>----------------------------------------</td>
</tr>
</tbody>
</table>
| C.2.4.2   | To treat and immobilize tank waste as part of the RPP System Plan, and to transfer the immobilized waste to an on-site disposal facility | • Complete permitting for bulk vitrification system  
| Sub-CLIN 4.2 | | • Operation of bulk vitrification system by volume of waste treated | 3% |
| Extended Demonstration Bulk Vitrification System Operations | | | |
| C.2.4.3   | Design of supplemental treatment plant(s) that augment the WTP, thereby expediting mission completion | • Completion of supplemental treatment plant(s) conceptual design  
| Sub-CLIN 4.3 | | • Successful completion of CD-0, CD-1, and CD-2  
| Supplemental Treatment Design | | • Completion of supplemental treatment plant(s) early permitting | 1% |
| C.2.4.4   | Construction and operation of supplemental treatment plant(s) to augment the WTP, thereby expediting mission completion | • Completion of treatment plant(s) design  
| Sub-CLIN 4.4 | | • Completion of treatment plant(s) construction and permitting  
| Supplemental Treatment Construction and Operations | | • Completion of treatment plant(s) CD-3, CD-4, and Operational Readiness Review  
| | | • Treatment plant(s) operations by volume of waste treated and staged for treatment | 20% |
| C.2.4.5   | Safe packaging, characterization, and loading for shipment of transuranic tank waste to its appropriate repository, thereby reducing the volume of tank waste that must be immobilized in the WTP or other treatment facilities | • Volume of waste removed and treated  
| Sub-CLIN 4.5 | | • Volume of waste shipped off-site  
| Transuranic Tank Waste Treatment and Packaging | | • Number of tanks ready for closure | 3% |

CLIN 5 – Early Feed and Operation of the WTP Low Activity Waste (LAW) Facility

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>OUTCOMES</th>
<th>POTENTIAL MEASURES</th>
<th>Estimated Weight of Total Available Fee</th>
</tr>
</thead>
</table>
| C.2.5.1   | Evaluation and Design of retrieval, pretreatment and feed delivery systems to facilitate early use of WTP LAW treatment capabilities | • Completion of conceptual design to maximize total tank waste treated using measures such as volume, curies and sodium  
| Sub-CLIN 5.1 | | • Successful completion of CD-0, CD-1, and CD-2  
<p>| Tank Selection, Retrieval, Pretreatment and Feed Delivery Design | | • Completion of up front permitting | 30% |</p>
<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>OUTCOMES</th>
<th>POTENTIAL MEASURES</th>
</tr>
</thead>
</table>
| C.2.5.2 Sub-CLIN 5.2 Retrieval, Pretreatment and Feed Delivery Construction and Operations | Complete Design and Construction of retrieval, pretreatment and feed delivery systems, and Operate to stage and/or deliver feed for WTP LAW | • Completion of design  
• Successful completion of CD-3, CD-4, and Operational Readiness Reviews  
• Completion of permitting  
• Operate systems to provide pretreated waste to WTP LAW and/or stage for delivery |
| C.2.5.3 Sub-CLIN 5.3 Upgrade and Operate Effluent Treatment Facility (ETF) | Transition operations of ETF into this contract and upgrade facility to process WTP secondary waste | • Operability and availability of waste treatment systems as required  
• Treatment of WTP, Tank Farms, and other Hanford waste |
| C.2.5.4 Sub-CLIN 5.4 LAW/BOF/LAB Operations                                | Manage, maintain and operate the LAW/BOF/LAB Facilities                   | • Operate LAW/BOF/LAB to treat tank waste for disposal  
• Maximize tank waste treated using measures such as volume, curies and sodium |

**CLIN 6 – Pension and Welfare Plans**

<p>| C.2.6 Sub-CLIN 6.1 Hanford Employee Retirement and Benefit Plan Management and Sub-CLIN 6.2 Legacy Pension and Benefit Plan Management | Effective sponsorship, management and administration of Hanford Employee Retirement and Benefit Plans | Effective sponsorship, management and administration of designated Legacy Pension and Benefit Plans from other DOE sites | No fee attached directly to this scope | No Fee |</p>
<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>OUTCOMES(^1)</th>
<th>POTENTIAL MEASURES</th>
<th>Estimated Weight of Total Available Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Overall performance effectiveness, quality, timeliness, efficiency, compliance and safety.</td>
<td>• Completion of Contractor Performance Objectives, Measures and Commitments&lt;br&gt;• Upgrade of facility Voluntary Protection Program status&lt;br&gt;• Nuclear Safety Analysis and Process Improvements&lt;br&gt;• Industrial Safety Process Improvements&lt;br&gt;• Subjective determination, cross-cutting all scope, not otherwise incentivized.</td>
<td>4%</td>
</tr>
</tbody>
</table>

6. In accordance with the Section B Clause entitled, *Changes to Contract Cost and Contract Fee*, if for any reason the Contracting Officer does not authorize work in accordance with the Section B Clause entitled, *DOE Authorization of Work*, the *Total Available Fee* as a percentage of *Total Contract Cost* by Contract Period, excluding non-fee bearing costs identified in the Section B Clause entitled, *Basis for Total Available Fee*, may be adjusted.

7. In accordance with the Section B Clause B.7 (a) entitled, Fee Structure, the following Hanford Tank Farm performance measures are provided:
PBI-1.1 CLIN 1

Performance Based Incentive (PBI) Title: Waste Volume Reduction via the 242-A Evaporator

Performance Fee available and assigned to this PBI: $1,500,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Glyn Trenchard</td>
<td>Neil Brosee</td>
<td>Rebecca Raven</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

The 242-A Evaporator is used to reduce waste volumes stored in the Double-Shell Tank (DST) system, conserving tank space necessary to support Single-Shell Tank (SST) retrieval and other DST operations.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, “Supplies or Services and Prices/Costs.”

Fee Bearing Milestones

1. A 242-A evaporator campaign that creates a 240,000 gallon waste volume reduction. For the first 240,000 gallons of waste volume reduction, the Contractor shall earn $200,000 in incremental fee.

Work scope/completion criteria: Operate the 242-A evaporator as a key component of the transfer and treatment system for tank farms. The evaporator campaign will process the waste to the parameters determined by Process Engineering. The volume reduction will be determined by the Process Control Plan (e.g., specific gravity goal and limits on the amount of waste removed from AW-102) with a minimum of 240,000 gallons, before flush, of free DST volume achieved. This evaporator campaign shall be scheduled to ensure maintenance of sufficient proficiency of Tank Farm personnel operating the evaporator.

Completion document: Letter transmitting the Performance Expectation Completion Notice and Letter Report and Evidence of Completion documenting that the waste volume reduction volume has been achieved and summarizing the volume reduction results.

2. A 242-A evaporator campaign that creates a 240,000 gallon waste volume reduction. For the second 240,000 gallons of waste volume reduction, the Contractor shall earn $500,000 in incremental fee.

Work scope/completion criteria: Operate the 242-A evaporator as a key component of the transfer and treatment system for tank farms. The evaporator campaign will process the waste...
to the parameters determined by Process Engineering. The volume reduction will be
determined by the Process Control Plan (e.g., specific gravity goal and limits on the amount of
waste removed from AW-102) with a minimum of 240,000 gallons, before flush, of free DST
volume achieved. This evaporator campaign shall be scheduled to ensure maintenance of
sufficient proficiency of Tank Farm personnel operating the evaporator.

Completion document: Letter transmitting the Performance Expectation Completion Notice and
Letter Report and Evidence of Completion documenting that the waste volume reduction volume
has been achieved and summarizing the volume reduction results.

3. A 242-A evaporator campaign that creates a 240,000 gallon waste volume reduction. For
the third 240,000 gallons of waste volume reduction, the Contractor shall earn $800,000 in
incremental fee.

Work scope/completion criteria: Operate the 242-A evaporator as a key component of the
transfer and treatment system for tank farms. The evaporator campaign will process the waste
to the parameters determined by Process Engineering. The volume reduction will be
determined by the Process Control Plan (e.g., specific gravity goal and limits on the amount of
waste removed from AW-102) with a minimum of 240,000 gallons, before flush, of free DST
volume achieved. This evaporator campaign shall be scheduled to ensure maintenance of
sufficient proficiency of Tank Farm personnel operating the evaporator.

Completion document: Letter transmitting the Performance Expectation Completion Notice and
Letter Report and Evidence of Completion documenting that the waste volume reduction volume
has been achieved and summarizing the volume reduction results.

PBI- 1.1 CLIN 1

Signature Block

Original Signed By
William Johnson, President
and Project Manager
Washington River Protection Solutions

1/14/09
Date

Original Signed By
Shirley Oliger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09
Date
PBI-1.2 CLIN 1

Performance Based Incentive (PBI) Title: Complete work to increase the rated maximum tank level in DST AP-103.

Performance Fee available and assigned to this PBI: $500,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Glyn Trenchard</td>
<td>Neil Brosee</td>
<td>Jim Geary</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Increasing the fill height in the AP Farm tanks will provide the DST space needed to support future SST retrievals.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

1. Complete work to increase the rated maximum tank level in DST AP-103. The Contractor shall earn $500,000 of incremental fee upon completion.

Work scope/completion criteria: Complete work to increase the rated maximum tank level in AP-103 in accordance with applicable requirements in RPP-19438 Rev 0A, “Report of Expert Panel Workshop for Hanford Site Double-Shell Tank Waste Increase.” The following changes to constraints listed in RPP-19438, Rev 0A, are authorized (any deviations from the following list must be approved by the ORP POC for this PBI):

a. Bulk specific gravity ≤1.83 per the Process Control Plan.

b. Four-quadrant video annulus surveillance during first fill to heights above 422 inches. Repeat as necessary for increasing fill heights up to the 458 inch in-service leak test level. Video surveillance to be continuous during fill and essentially continuous (i.e., break of 30 to 60 minutes permitted per shift) for 2 days after the new waste height is accomplished.

c. Provide a written statement that waste level checks will be conducted every 30 minutes, 60 minutes, and then every 120 minutes during waste transfers above 422 inches.

Completion document: Letter transmitting the Performance Expectation Completion Notice and Letter Report documenting the level rise test was successfully completed to increase the maximum level rating in AP-103.
PBI- 1.2 CLIN 1

Signature Block

Original Signed By

William Johnson, President
and Project Manager
Washington River Protection Solutions

1/14/09
Date

Original Signed By

Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09
Date
PBI-1.3 CLIN 1

Performance Based Incentive (PBI) Title: Tank Farm Facility Upgrades

Performance Fee available and assigned to this PBI: $350,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Glyn Trenchard</td>
<td>Neil Brosee</td>
<td>Duane Renberger/Jim Geary</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

The 222-S Laboratory will be required for the balance of Hanford's life cycle period of FY 2009 through FY 2040 to meet the site sample analysis requirements. Installation of the 219-S overflow protection and the Fire Detection System for the 2nd floor of the 222-S Building will maintain laboratory facility reliability.

The valves in the AW-B Pit, as identified in RPP-PLAN-34886, Rev 1, Table 1, will undergo valve funnel replacement and valve positioning plate replacement. This will allow positioning of those valves (or replacement valves) from above the pit without the need to use in-pit video examination of the stem and stops to confirm valve position.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

1. Perform 222-S Laboratory Upgrades. Complete design and installation of the Fire Detection System and 219S overflow protection for the 2nd floor of the 222-S Building. The Contractor shall earn $200,000 of incremental fee upon completion of the upgrades.

Work scope/completion criteria: Complete design and construction of the 219S Overflow Protection and turn over to operations. Complete design and installation of the Fire Detection System for the 2nd floor of the 222-S Building and turn over to operations.

2. Perform DST Upgrade. The Contractor shall earn $150,000 of incremental fee upon completion of the upgrade.

Work scope/completion criteria: AW-B pit gear actuated valves:
- Determine a corrective action for the gear actuated waste transfer valves in the AW-B pit that must be configured using video examination.
- Modify or replace the valves so the positioning those valves (or replacement valves) can be done from above the pit with surety without the need to use in-pit video examination of the stem and stops to confirm valve position.
- Complete valve funnel replacement and valve positioning plate installation for the valves in the AW-B Pit as identified in RPP-PLAN-34866, Table 1.

Completion document: Letter transmitting the Performance Expectation Completion Notice and Letter Report documenting completion of the modification or replacement of the valves so the positioning of those valves (or replacement valves) can be done from above the pit without in-pit video examination and acceptance by operations.

PBI- 1.3 CLIN 1

Signature Block

Original Signed By
William Johnson, President
and Project Manager
Washington River Protection Solutions

1/14/09

Original Signed By
Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09
PBI-1.4 CLIN 1

Performance Based Incentive (PBI) Title: Integrated Safety Management (ISM)

Performance Fee available and assigned to this PBI: $500,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Brian Harkins</td>
<td>Neil Brosee/ Fred Beranek</td>
<td>John McDonald</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Satisfactory implementation of Integrated Safety Management (ISM) System

Fee Payment Schedule

Full fee payment upon completion satisfactory completion of a full Phase II ISM Verification by DOE.

Fee Bearing Milestones

1. Successfully complete Phase I and Phase II Verification of ISM System implementation. The Contractor shall earn $500,000 of incremental fee upon satisfactory completion of a full Phase II ISM Verification by DOE.

Work scope/completion criteria: Completion of a DOE Phase II Verification to verify that the ISMS has been satisfactorily implemented.

Note: DOE will provide the Phase II ISM Verification within 30 days of WRPS declaration of readiness for the Verification.

Completion Document: The Phase II Verification Team Lead will recommend in writing to the appropriate DOE approval authority that ISM had been satisfactorily implemented by the Contractor.
PBI- 1.4 CLIN 1

Signature Block

Original Signed By

William Johnson, President
and Project Manager
Washington River Protection Solutions

Original Signed By

Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09
Date
PBI-1.5 CLIN 1

Performance Based Incentive (PBI) Title: Remove Liquids from the Secondary Containment of the 244-CR Vault

Performance Fee available and assigned to this PBI: $350,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Glyn Trenchard</td>
<td>Mark Lindholm</td>
<td>Scott Saunders</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Removal of liquids from the 244-CR Vault secondary containment and sealing of the vault to prevent intrusion of liquids.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, “Supplies or Services and Prices/Costs.”

Fee Bearing Milestones

1. Remove Liquids from the secondary containment of the 244-CR Vault. Perform all necessary sealing activities to protect the 244-CR Vault from intrusion of liquids. The Contractor shall earn $350,000 of incremental fee upon completion of the liquid removal and vault sealing.

Work scope/completion criteria: The free liquid will be removed from the 244-CR Vault secondary containment. The liquid will be removed to a sump level of 26 gallons or less and below the sump level alarm (if in service). As applicable, an Independent Qualified Registered Professional Engineer (IQRPE) must approve extension of the hose-in-hose transfer line (HIHTL) service life per RPP-12711. Visual observation using in-tank camera or physical level measurement methods (e.g. manual tape) will be used to verify final sump level. Additional liquid will be removed if possible considering the liquid mitigation system limits and capabilities. The 244-CR Vault cover and above-grade risers/nozzles must be sealed to prevent intrusion of liquids.

Completion document: Letter report and video (if applicable) documenting pumpable liquids have been removed from the 244-CR Vault secondary containment. The report should also document sealing actions performed to prevent liquid intrusion.
Signature Block

Original Signed By

William Johnson
President
and Project Manager
Washington River Protection Solutions

1/14/09
Date

Original Signed By

Shirley Olinger
Manager
U.S. Department of Energy, Office of River Protection

1/14/09
Date
PBI-1.6 CLIN 1

Performance Based Incentive (PBI) Title: Remove Liquids from the UX-302A Catch Tank

Performance Fee available and assigned to this PBI: $350,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Glyn Trenchard</td>
<td>Mark Lindholm</td>
<td>Scott Saunders</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Removal of liquids from the UX-302A catch tank and sealing of the catch tank to prevent intrusion of liquids.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

1. Remove liquids from the UX-302A catch tank. Perform all necessary sealing activities to protect the catch tank from intrusion of liquids. The Contractor shall earn $250,000 of incremental fee upon completion of the liquid removal and catch tank sealing.

   Work scope/completion criteria: The free liquid will be removed from the UX-302A catch tank. Visual observation using an in-tank camera will be used to verify final tank level. Additional liquid will be removed if possible considering the liquid mitigation system limits and capabilities. The UX-302A catch tank must be sealed to prevent intrusion of liquids.

   Completion document: Letter report and video documenting pumpable liquids have been removed from the UX-302A catch tank. The report should also document sealing actions performed to prevent liquid intrusion.

2. Investigate source of water intrusion and recommend isolation options. The Contractor shall earn $100,000 of incremental fee upon completion of evaluation.

   - Work scope/completion criteria: Investigate and evaluate isolation options and prepare a recommendation to DOE on how or whether to isolate the tank from further intrusion.
   - Completion document: Letter report with recommendations by the Tank Operations Contractor and transmitted to DOE.
Original Signed By
William Johnson, President
and Project Manager
Washington River Protection Solutions

Original Signed By
Shirley Olinger, Manager
U.S. Department of Energy Office of River Protection

1/14/09
Date
PBI-2.1 CLIN 2

Performance Based Incentive (PBI) Title: Completion of Retrieval Operations from Single-Shell Tank 241-C-104

Performance Fee available and assigned to this PBI: $4,000,000 (including $2,500,000 Stretch fee)

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Steve Pfaff</td>
<td>Mark Lindholm</td>
<td>Kent Smith</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Completion of waste retrieval activities to meet or exceed performance requirements in the HFFACO M-45-00 series milestones.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, “Supplies or Services and Prices/Costs.”

Fee Bearing Milestones

1. Complete waste retrieval system construction for Tank 241-C-104 and turnover to operations to permit retrieval operations. The Contractor shall earn $1,000,000 of incremental fee upon completion of construction of Tank 241-C-104 and turnover to operations.

Work scope/completion criteria: Complete waste retrieval system construction and turnover to operations. The retrieval system must be approved by an Independent Qualified Registered Professional Engineer (IQRPE) as compliant with Washington Administrative Code (WAC) 173-303-640 as part of the completion of construction. The Construction Completion Documents, Section IIb, “Completion of Exceptions,” will be completed and approved by the Contractor, including Operations. References: 1) Tank Waste Retrieval Work Plan 2) Construction Completion and Turnover. TFC-PRJ-CM-C-08, Rev B-2, issued June 3, 2008.

Completion Document: Contractor approved, including Operations. Construction Completion Document through Section IIb, “Completion of Exceptions” for the above listed work.

2. Complete retrieval of 25% of the Waste by Volume in Tank 241-C-104. The Contractor shall earn $500,000 of incremental fee for completion of 25% retrieval of Tank 241-C-104.

Work scope/completion criteria: Perform waste retrieval activities to achieve 25% reduction in the initial SST waste volume. The retrieval of 25% of initial SST waste by volume shall be based on an initial volume determined from the latest BBI information or a pre-retrieval volume...
determination, if completed. The retrieved volume will be an estimate based on material balance calculations.

**Completion document:** The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 25% of the initial waste volume.

3. **(STRETCH) Complete retrieval of 50% of the Waste by Volume in Tank 241-C-104.** The Contractor shall earn $500,000 of Stretch fee upon completion of 50% retrieval of Tank 241-C-104.

**Work scope/completion criteria:** Perform waste retrieval activities to achieve 50% reduction in the initial SST waste volume. The retrieval of 50% of initial SST waste by volume shall be based on an initial volume determined from the latest BBI information or a pre-retrieval volume determination, if completed. The retrieved volume will be an estimate based on material balance calculations.

**Completion document:** The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 50% of the initial waste volume.

4. **(STRETCH) Complete retrieval of 75% of the Waste by Volume in Tank 241-C-104.** The Contractor shall earn $500,000 of Stretch fee upon completion of 75% retrieval of Tank 241-C-104.

**Work scope/completion criteria:** Perform waste retrieval activities to achieve 75% reduction in the initial SST waste volume. The retrieval of 75% of initial SST waste by volume shall be based on an initial volume determined from the latest BBI information or a pre-retrieval volume determination, if completed. The retrieved volume will be an estimate based on material balance calculations.

**Completion document:** The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 75% of the initial waste volume.

5. **(STRETCH) Complete retrieval of Tank 241-C-104.** The Contractor shall earn $1,500,000 of Stretch fee upon completion of retrieval of Tank 241-104.

**Work scope/completion criteria:** Complete waste retrieval to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones for residues and/or demonstration of the limit of the waste retrieval technology.

**Completion document:** The submittal of material balance data and engineering calculations summary information demonstrating retrieval is complete or at the limits of the deployed technology.
PBI- 2.1 CLIN 2

Signature Block

Original Signed By

William Johnson, President
and Project Manager
Washington River Protection Solutions

1/14/09
Date

Original Signed By

Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09
Date
PBI-2.2 CLIN 2

Performance Based Incentive (PBI) Title: Completion of Retrieval Operations from Single Shell Tank 241-C-110

Performance Fee available and assigned to this PBI: $2,500,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Steve Pfaiff</td>
<td>Mark Lindholm</td>
<td>Kent Smith</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Completion of waste retrieval activities to meet or exceed performance requirements in the HFFACO M-45-00 series milestones

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, “Supplies or Services and Prices/Costs.”

Fee Bearing Milestones

1. Complete waste retrieval system construction for Tank 241-C-110 and turnover to operations to permit resumption of retrieval operations. The Contractor shall earn $1,000,000 of incremental fee upon completion.

Work scope/completion criteria: Complete waste retrieval system construction and turnover to operations. The retrieval system must be approved by an Independent Qualified Registered Professional Engineer (IQRPE) as compliant with WAC 173-303-640 as part of the completion of construction. The Construction Completion Documents, Section IIb, “Completion of Exceptions,” will be completed and approved by the Contractor, including Operations. References: 1) Tank Waste Retrieval Work Plan and 2) Construction Completion and Turnover, TFC-PRJ-CM-C-08, Rev B-2, issued June 3, 2008.

Completion Document: Contractor approved, including Operations, Construction Completion Document through Section IIb, “Completion of Exceptions” for the above listed work.

2. Complete retrieval of 50% of the Waste by Volume in Tank 241-C-110. The Contractor shall earn $500,000 of incremental fee upon completion.

Work scope/completion criteria: Perform waste retrieval activities to achieve 50% reduction in the initial SST waste volume. The retrieval of 50% of initial SST waste by volume shall be based on an initial volume determined from the latest BBI information or a pre-retrieval volume
determination, if completed. The retrieved volume will be an estimate based on material balance calculations.

Completion document: The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 50% of the initial waste volume.

3. Complete retrieval of Tank 241-C-110. The Contractor shall earn $1,000,000 of incremental fee upon completion.

Work scope/completion criteria: Complete waste retrieval to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones for residues and/or demonstration of the limit of the waste retrieval technology.

Completion document: The submittal of material balance data and engineering calculations summary information demonstrating retrieval is complete or at the limits of the deployed technology.

PBI-2.2 CLIN 2

Signature Block

Original Signed By
William Johnson, President and Project Manager Washington River Protection Solutions

Original Signed By
Shirley Olinger Manager U.S. Department of Energy, Office of River Protection

1/14/09 Date

1/14/09 Date
PBI-2.3 CLIN 2

Performance Based Incentive (PBI) Title: Complete sampling per Closure Data Quality Objective and pursue HFFACO regulatory strategy to establish closure readiness of Tank 241-C-108.

Performance Fee available and assigned to this PBI: $250,000 (Stretch)

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Steve Pfaff</td>
<td>Mark Lindholm</td>
<td>Kent Smith</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

SST 241-C-108 hard heel residual has been sampled and characterized. Characterization data is available to support Performance Assessment criteria for closure. Physical waste properties and analysis will be available to support a determination that retrieval has been completed to the 'maximum extent practicable' under DOE 435.1, and technically possible to support a TPA Appendix H process. This sampling, and follow on sampling report, would be of the appropriate quality needed to support an engineering evaluation to determine whether any additional waste could be removed from these tanks for use in a TPA Appendix H and DOE 435.1 final analysis of tank retrieval.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

1. (STRETCH) Complete sampling per established Data Quality Objectives (DQO) for "closure readiness" and waste property data. The Contractor shall earn $150,000 in Stretch fee.

Work scope/completion criteria: Complete sampling of C-108 hard-heel per the DQO for SST closure. Sampling criteria should be expanded to include sufficient material for waste property analyses.

Completion Document: Completed Tank Sampling and Analysis Plan (TSAP) and transport samples to the 222-S Analytical Laboratory.

2. (STRETCH) Complete Sample Analysis Report per DQO and established waste properties to assist "closure readiness" and technical basis for declaring retrieval complete. The Contractor shall earn $100,000 in Stretch fee.
Work scope/completion criteria: Complete sampling report including data on waste properties.

Completion Document: Transmit Sample Analysis Report and technical basis document for declaring retrieval complete.

PBI-2.3 CLIN 2

Signature Block

Original Signed By: 1/14/09
William Johnson, President and Project Manager
Washington River Protection Solutions

Original Signed By: 1/14/09
Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection
PBI-2.4 CLIN 2

Performance Based Incentive (PBI) Title: Complete sampling per Closure Data Quality Objective and pursue HFFACO regulatory strategy to establish closure readiness of Tank 241-C-109

Performance Fee available and assigned to this PBI: $250,000 (Stretch)

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Steve Pfaff</td>
<td>Mark Lindholm</td>
<td>Kent Smith</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

SST 241-C-109 hard heel residual has been sampled and characterized. Characterization data is available to support Performance Assessment criteria for closure. Physical waste properties and analysis will be available to support a determination that retrieval has been completed to the 'maximum extent practicable' under DOE 435.1, and technically possible to support a TPA Appendix H process. This sampling, and follow on sampling report, would be of the appropriate quality needed to support an engineering evaluation to determine whether any additional waste could be removed from these tanks for use in a TPA Appendix H and DOE 435.1 final analysis of tank retrieval.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

1. (STRETCH) Complete sampling per established Data Quality Objectives (DQO) for “closure readiness” and waste property data. The Contractor shall earn $150,000 in Stretch fee.

Work scope/completion criteria: Complete sampling of C-109 hard-heel per the DQO for SST closure. Sampling criteria should be expanded to include sufficient material for waste property analyses.

Completion Document: Completed Tank Sampling and Analysis Plan (TSAP) and transport samples to the 222-S Analytical Laboratory.

2. (STRETCH) Complete Sample Analysis Report per DQO and established waste properties to assist “closure readiness” and technical basis for declaring retrieval complete. The Contractor shall earn $100,000 in Stretch fee.
Work scope/completion criteria: Complete sampling report including data on waste properties.

Completion Document: Transmit Sample Analysis Report and technical basis document for declaring retrieval complete.

PBI-2.4 CLIN 2

Signature Block

Original Signed By

William Johnson, President and Project Manager
Washington River Protection Solutions

1/14/09 Date

Original Signed By

Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09 Date
PBI-2.5 CLIN 2

Performance Based Incentive (PBI) Title: Complete removal and shipment to final disposition of expired Hose-In-Hose Transfer Lines

Performance Fee available and assigned to this PBI: $1,100,000 (including $500,000 stretch fee)

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Steve Pfaff</td>
<td>Neil Brosee</td>
<td>Jim Geary</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Expired Hose-In-Hose Transfer Lines (HIHTL) are removed from the Hanford Tank Farms in accordance with the schedule in the HIHTL Management Plan.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones


2. Complete shipping of the HIHTL, RBHS-2EHT-4EINS. The Contractor shall earn $20,000 in incremental fee.

3. Complete removal of the interim stabilization HIHTL from U-107 valve pit to U-D valve pit (RBHS-2MHT-4MINS), package for shipment. The Contractor shall earn fee $80,000 in incremental fee.

4. Complete shipping of the HIHTL, RBHS-2MHT-4MINS. The Contractor shall earn $20,000 in incremental fee.

5. Complete removal of the interim stabilization HIHTL from U-111 valve pit to U-D valve pit (CHG-2NHT-4NINS), package for shipment. The Contractor shall earn $80,000 in incremental fee.

6. Complete shipping of the HIHTL, CHG-2NHT-4NINS. The Contractor shall earn $20,000 in incremental fee.
7. Complete removal of the interim stabilization HIHTL from 244-AR valve pit to 241-AR-151 valve pit (CHG-2UHT-4UINS), package for shipment. The Contractor shall earn $80,000 in incremental fee.

8. Complete shipping of the HIHTL, CHG-2UHT-4UINS. The Contractor shall earn $20,000 in incremental fee.

9. Complete removal of the interim stabilization HIHTL from 241-U-09A valve pit to 241-U-09B valve pit and package for shipment. The Contractor shall earn $80,000 in incremental fee.

10. Complete shipping of the HIHTL 241-U-09A valve pit to 241-U-09B valve pit. The Contractor shall earn $20,000 in incremental fee.

11. Complete removal of the interim stabilization HIHTL from U-D valve pit to SY (1) valve pit (I-49637-0-10), package for shipment. The Contractor shall earn $80,000 in incremental fee.

12. Complete shipping of the HIHTL I-49637-0-10. The Contractor shall earn $20,000 in incremental fee.

Note: The following HIHTLs may be removed and shipped for additional stretch fee. The HIHTL may be substituted with another HIHTL if mutually agreed to by ORP and WRPS.

13. (STRETCH) Complete removal of the retrieval HIHTL from C-06B pit to C-06A pit (I-19643-5), package for shipment. The Contractor shall earn $80,000 in Stretch fee.

14. (STRETCH) Complete shipping of the HIHTL I-19643-5. The Contractor shall earn $20,000 in stretch fee.

15. (STRETCH) Complete removal of the retrieval HIHTL from C-106 pit to C-103 pit area (I-19643-2), package for shipment. The Contractor shall earn $80,000 in Stretch fee.


17. (STRETCH) Complete removal of the retrieval HIHTL from POR104 area to C-103 pump pit (I-52355-0-1), package for shipment. The Contractor shall earn $80,000 in Stretch fee.

18. (STRETCH) Complete shipping of the HIHTL I-52355-0-1. The Contractor shall earn $20,000 in Stretch fee.

19. (STRETCH) Complete removal of the retrieval HIHTL from POR104 area to C-103 sluicer pit (I-52355-0-2), package for shipment. The Contractor shall earn $80,000 in Stretch fee.

20. (STRETCH) Complete shipping of the HIHTL I-52355-0-2. The Contractor shall earn $20,000 in Stretch fee.

21. (STRETCH) Complete removal of the retrieval HIHTL from C-103 heel pit to POR104 area (I-52355-0-3), package for shipment. The Contractor shall earn $80,000 in Stretch fee.
22. (STRETCH) Complete shipping of the HIHTL I-52355-0-3. The Contractor shall earn $20,000 in Stretch fee.

Work scope/completion criteria for HIHTL removal: The line has been removed from the field, and packaged for shipment to the treatment vendor. The line removal and packaging will be documented in the mixed waste pre-shipment notification form and the approved generator certification form. At the completion of the HIHTL removal, the Field Work Supervisor will verify all housekeeping activities related to the work have been completed. Completion of housekeeping will be signed off in the work record of the work package.

Completion Document for HIHTL removal: A letter transmitting the mixed waste pre-shipment notification form and the approved generator certification form. Work packages completed and accepted by Operations.

Work scope/completion criteria for shipping: The HIHTL waste package has been shipped to the treatment vendor.


PBI-2.5 CLIN 2

Signature Block

Original Signed By

William Johnson, President
and Project Manager
Washington River Protection Solutions

1/14/09
Date

Original Signed By

Shirley Olinger, Manager
Office of River Protection

1/14/09
Date
PBI-2.6 CLIN 2

Performance Based Incentive (PBI) Title: Vadose Zone Barriers

Performance Fee available and assigned to this PBI: $1,925,000 (including $625,000 stretch fee)

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Glyn Trenchard</td>
<td>Mark Lindholm</td>
<td>Susan Eberlein</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Characterization of two high priority sites for possible future interim surface barriers has been completed to support definition and design of barriers. Barrier design has been completed for the T tank farm barrier based on the characterization results. A technical document describing the process for prioritizing and evaluating interim barriers has been provided to the Washington State Department of Ecology. Phase 2 characterization of Waste Management Area C has been undertaken, consistent with the plan described in the M-045-60 deliverable (WMA C RFI/CMS Work Plan, RPP-PLAN-39114). This characterization includes evaluation of effectiveness of deep electrodes to enhance surface geophysical exploration, collection of 40 soil samples using the direct push unit in WMA C and initial lab testing of a prototype beta detection probe for future deployment with the direct push unit.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

1. Complete the near-surface vadose zone characterization for new barrier site in TY Farm by September 30, 2009. The Contractor shall earn $300,000 of incremental fee upon completion.

Work scope/completion criteria: Complete the vadose zone characterization utilizing the hydraulic hammer/direct push technology to define the extent of a surface barrier in TY tank farm. Field work shall include geophysical logging of direct push probes (probes pushed to refusal or to 110 feet below ground surface, whichever is less) and obtaining soil samples using direct push technology for geochemical analysis. Selection of logging and sampling locations will follow RPP-ENV-38695, Data Requirements for Characterization Supporting Near-Term Interim Barriers. Any deviations from this report will be documented, including the basis for the deviation. Characterization will provide information on size and location of a TY barrier, as input to the design process. Characterization will support a decision on whether a barrier can be constructed cost-effectively that will sufficiently cover the sub-surface plume(s).
Completion document: Letter report(s) submitted to ORP, documenting completion of direct push samples collected per work plan, logging results, and summary of analytical results used for barrier decisions. Include recommendations on size and location of barrier as input to the design process.

2. Deploy Surface Geophysical Exploration in tank farms S/SX. The Contractor shall earn $250,000 of incremental fee upon completion.

Work scope/completion criteria: Deploy surface geophysical exploration (SGE) technology in SX farm and the southern portion of S farm as required to define the extent of a surface barrier for SX farm, including areas to the west of the SX tanks. Collect surface to surface resistivity measurements in accordance with work plans approved by ORP. Maintain the electronic data for future analysis.

Completion document: Letter report submitted to ORP providing a map of the resistivity measurement locations, and providing a link to the electronic location of the resistivity data for future analysis.

3. Deploy Surface Geophysical Exploration in C tank farm. The Contractor shall earn $150,000 of incremental fee upon completion.

Work scope/completion criteria: Deploy SGE technology at one unplanned release (UPR) site in waste management area C. Collect surface to surface resistivity data and surface to deep electrode resistivity data, using the previously installed deep electrodes. Provide a data analysis plan for ORP approval to show how the C farm UPR data will be used to evaluate performance of deep electrodes. Evaluate performance of deep electrodes as a means to improve effectiveness of resistivity mapping in areas with subsurface infrastructure. Provide a SGE evaluation work plan for future evaluation activities based on the C farm UPR results, by September 30, 2009.

Completion document: Letter report submitted to ORP providing the results of data analysis and the resistivity anomaly maps for one UPR in waste management area C, and evaluating the effectiveness of the deep electrodes, based on the ORP approved C farm UPR data analysis plan. SGE evaluation work plan for future evaluation activities.

4. Complete Design of TY Farm Surface Barrier (Note: this PBI should be subject to renegotiation if characterization determines that a TY Farm Surface Barrier would be ineffective for reducing vadose zone contamination movement toward groundwater.) The Contractor shall earn $300,000 of incremental fee upon completion.

Work scope/completion criteria: Barrier shall be designed to cover the area identified by TY characterization (see item 1 above), and shall be designed to handle precipitation expected in the 25-year maximum rainfall event and the designed water storage system and/or discharge will not impact any ORP/RL waste sites. DOE-ORP and DOE-RL will be included in the design review process. Design will be issued into Hanford Document Control System (HDCS).
Completion document: Letter report submitted to ORP providing information that the design of TY Farm Surface Barrier has been issued into HDCS.

5. Complete the near-surface vadose zone characterization for new barrier site in SX Farm by September 30, 2009. The contractor shall earn $300,000 of incremental fee upon completion.

Work scope/completion criteria: Using direct push, complete the vadose zone characterization utilizing the hydraulic hammer/direct push technology to define the extent of a surface barrier in SX tank farm. Field work shall include geophysical logging of direct push probes (probes pushed to refusal or to 130 feet below ground surface, whichever is less) and obtaining soil samples using direct push technology for geochemical analysis. Selection of logging and sampling locations will be documented in a work plan or in a revision to RPP-ENV-38696. Data Requirements for Characterization Supporting Near-Term Interim Barriers. Any deviations from this plan will be documented, including the basis for the deviation. Characterization will provide information on size and location of a SX barrier, as input to the design process. Characterization will support a decision on whether a barrier can be constructed cost-effectively that will sufficiently cover the sub-surface plume(s).

Completion document: Letter report(s) submitted to ORP, documenting completion of direct push samples collected per work plan, logging results, and summary of analytical results used for barrier decisions. Include recommendations on size and location of barrier as input to the design process.


Work scope/completion criteria: The criteria document for interim barriers shall address criteria for prioritizing future barriers and criteria for evaluating barrier performance.


7. (STRETCH) Implement direct push soil characterization in Waste Management Area (WMA) C, obtaining 40 samples, to support development of a corrective measures study for WMA closure, consistent with the WMA C RFI/CMS Work Plan (RPP-PLAN-39114). The Contractor shall earn $500,000 of Stretch fee upon completion.

Work scope/Completion Criteria: Perform direct push logging, sampling and probe hole decommissioning at sites identified in the WMA C work plan, per the plan, to obtain a total of 40 samples (including surface samples, as directed by the plan). Deliver the samples to the laboratory for analysis and commence analysis per the plan. The specific locations chosen for probe holes will be determined based both on technical need and field accessibility (coordinated with retrieval activities). The selection of specific locations shall be approved by ORP prior to commencing field deployment.
Completion document: A letter report submitted to ORP providing direct push locations, logging results, and sample identification numbers for each direct push location.

8. (STRETCH) Perform laboratory testing of a beta-detection system, suitable for field deployment with a direct push unit for field screening of technetium. The Contractor shall earn $100,000 of Stretch fee upon completion.

Work scope/Completion Criteria: During development of the Data Quality Objectives for WMA C, a field-deployable beta detection probe was identified as a desirable innovative technology to support WMA C (and other WMA) characterization at reduced cost. In order to evaluate this approach, obtain a beta detection probe and configure it in a manner that could be used for deployment with a direct push unit. Test the probe in a laboratory setting with existing vadose zone soils samples. Provide a written report of results, including assessment of probe effectiveness for technetium detection, recommended configuration for field deployment (if effective), proposed test plan, schedule and cost estimate for future probe deployment (if effective).

Completion document: A written report of the results of a laboratory test of a beta detector applied to vadose zone soil samples, including assessment of probe effectiveness for technetium detection, recommended configuration for field deployment (if effective), proposed test plan, schedule and cost estimate for future probe deployment (if effective).

PBI-2.6 CLIN 2

Signature Block

Original Signed By
William Johnson, President
and Project Manager
Washington River Protection Solutions

Original Signed By
Shirley [signature]
U.S. Department of Energy, Office of River Protection

1/14/09
Date
PBI-2.7 CLIN 2

Performance Based Incentive (PBI) Title: Catch tank and pipeline reporting

Performance Fee available and assigned to this PBI: $375,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Glyn Trenchard</td>
<td>Mark Lindholm</td>
<td>William Dixon</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Washington Department of Ecology receives a report on all catch tanks and associated pipelines that are identified in the Single-Shell Tank (SST) System RCRA Part A permit application or that have otherwise been known to be used for SST tank system operations. The report identifies DOE’s proposed closure strategy for each of these tanks and ancillary equipment. Items outside of the Waste Management Area (WMA) boundaries are assigned either to a specific waste site operable unit (200-IS-1) or to a specific WMA for closure.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, “Supplies or Services and Prices/Costs.”

Fee Bearing Milestones

1. Submission of a DOE-approved report to the ORP for transmittal to the Washington Department of Ecology. The Contractor shall earn $375,000 of incremental fee upon completion.

Work scope/completion criteria: The report should meet the following criteria:

- Includes all SST catch tanks and associated pipelines identified in the Single-Shell Tank (SST) System Part A or that have otherwise been known to be used for SST tank system operations.

- Identifies a proposed closure strategy for the catch tanks and ancillary equipment identified in above.

- Includes catch tanks and ancillary equipment outside the Waste Management Area boundaries by assigning them to a specific waste site operable unit (200-IS-1) or to a specific WMA for closure.

- Provides the regulatory basis and supporting information for each such assignment.
- For items assigned to an Operable Unit, M-16-00 processes and milestones will be followed to ensure completion of remedial actions for all non-tank farm operable units by September 30, 2024 (M-16-00). The schedules for remedial action implementation will be established by regulatory agency approval of the Remedial Design/Remedial Action work plans and is enforceable as a HFFACO requirement.

- For items assigned to WMAs for closure, closure milestones will be included within the applicable WMA closure schedule and milestones.

Completion document: Letter transmitting DOE-approved report.

PBI- 2.7 CLIN 2

Signature Block

Original Signed By

1/14/09

Date

William Johnson, President
and Project Manager
Washington River Protection Solutions

Original Signed By

1/14/09

Date

Shirley Olinger Manager,
U.S. Department of Energy, Office of River Protection
PBI-2.8 CLIN 2

Performance Based Incentive (PBI) Title: Technology Development

Performance Fee available and assigned to this PBI: $1,700,000 (including $600,000 Stretch fee)

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Steve Pfaff</td>
<td>Mark Lindholm</td>
<td>Scott Saunders/Kris Colosi</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

New technologies need to be developed to ensure waste is delivered to the Waste Treatment Plant (WTP) and other tank waste treatment facilities to maximize throughput through the treatment systems. To accomplish this goal, technologies need to be developed to reduce Single Shell Tank retrieval durations in hard-heel tanks and tanks that are assumed to have leaked to the environment in the past. The contractor has proposed the development of a multifunction telerobotic arm that will be deployed and moved from tank to tank to support retrieval via multiple techniques (e.g., sluicing, confined-sluicing via an end-effector, enhanced chemical cleaning). An arm will be developed and tested at the Cold Test Facility or other facility. Production units will be developed for the 100-series tanks initially to support retrieval and closure commitments. Another technology under development entails mechanical and chemical separations processes to produce Low Activity Waste (LAW) feed as part of the tank retrieval process from Double-Shell Tanks. Such feed could enable operation of the WTP LAW facility or other tank waste treatment facilities.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, “Supplies or Services and Prices/Costs.”

Fee Bearing Milestones

1. Telerobotic arm Phase I qualification testing: The Contractor shall earn $200,000 of incremental fee upon completion.

Work scope/completion criteria: The Contractor shall demonstrate successful completion of the tank waste retrieval telerobotic arm Phase I qualification testing.

Completion document: A formal report submitted to ORP, demonstrating successful completion of Phase I qualification testing.
2. Telerobotic arm final design. The Contractor shall earn $200,000 of incremental fee upon completion.

**Work scope/completion criteria:** The Contractor shall complete final design of the tank waste retrieval telerobotic arm Phase I qualification testing.

**Completion document:** A formal report submitted to ORP, demonstrating completion of final design.

3. Telerobotic arm Phase II qualification testing. The Contractor shall earn $400,000 of incremental fee upon completion.

**Work scope/completion criteria:** The Contractor shall demonstrate successful completion of tank waste retrieval telerobotic arm Phase II qualification testing with waste simulant.

**Completion document:** A formal report submitted to ORP, demonstrating successful completion of Phase II qualification testing with waste simulant.

4. (STRETCH) Receipt of tank waste retrieval telerobotic arm. The Contractor shall earn $300,000 of Stretch fee upon completion.

**Work scope/Completion Criteria:** The Contractor will take delivery of one production-unit 100-series tank waste retrieval telerobotic arm – ready for deployment into a C Farm tank.

**Completion document:** A letter report submitted to ORP describing the satisfactory receipt inspection of the tank waste retrieval telerobotic arm.

**Desired Endpoint/Outcome**

Retrievals under current criteria require that approximately 2,000,000 gallons of double-shell tank (DST) waste storage space not be used to prevent creating new tanks that might be susceptible to buoyant displacement gas release events (BDGRE). New criteria are being developed, based on actual sludge properties, to potentially show that sludge wastes do not exhibit the same BDGRE risk, and this DST waste storage space might be safely utilized. Analysis, development, and implementation of new BDGRE criteria require waste shear strength measurements, and that measurement technology must be adapted for use in DSTs.

**Fee Payment Schedule**

5. Procure and evaluate shear strength measuring equipment at the Cold Test Facility (CTF). The Contractor shall earn $300,000 of incremental fee upon completion.

**Work scope/completion criteria:** Procure shear strength measuring equipment. Perform an engineering evaluation to identify suitability for use in tank farms through testing at CTF, and document changes required (if any) for deployment in selected DSTs.

**Completion document:** Letter transmitting the Performance Expectation Completion Notice and technical document of operational test results.
Desired Endpoint/Outcome

The Contractor performs alternatives analysis and recommends a preferred alternative for an Interim Pretreatment System capable of processing tank waste to produce qualified Low Activity Waste (LAW) feed sufficient for start-up and testing of the Waste Treatment Plant LAW vitrification facility. The alternatives to be considered will include both in-tank and in-vault treatment, in isolation and in combination with other facilities planned for construction at Hanford. Recommendations are to be based upon an ORP-specified range of siting/funding/schedule assumptions and system requirements. In-tank technologies will be developed and tested so as to advance their technical maturity and, in the event that in-tank technologies are adopted, to reduce overall technical risk. A strategic plan for IPS development is to be prepared. IPS project documents prepared in FY08 are to be revised to include the recommended alternative.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

6. (STRETCH) Low Activity Waste feed alternatives analysis. The Contractor shall earn $100,000 of Stretch fee upon completion.

Work scope/Completion Criteria: Compare technology/siting alternatives with respect to cost, schedule, technical maturity, safety, stakeholder/regulator acceptance, operability, maintainability, volume of Double-Shell Tank space recovered, and programmatic aspects such as funds availability, technology crossover into other projects, and long term use.

Completion document: ORP approval of an alternatives analysis report.

7. (STRETCH) Low Activity Waste feed strategic development plan. The Contractor shall earn $100,000 of Stretch fee upon completion.

Work scope/Completion Criteria: Prepare a plan for cooperative development of the recommended alternative, including timetable, funding profile, interface control requirements, and strategy for joint project development leading to Critical Decision-1.

Completion document: ORP approval of the strategic development plan.

8. (STRETCH) Low Activity Waste feed technology testing and development. The Contractor shall earn $100,000 of Stretch fee upon completion.
Work scope/Completion Criteria: Perform testing and development of LAW feed technologies for cesium and solids removal applicable to Hanford tank waste.

Completion document: A formal report submitted to ORP detailing the results of testing, evaluation of the Technology Readiness Level (TRL) attained, and a technology maturation plan to bring a technology(ies) to TRL 4.

PBI- 2.8 CLIN 2

Signature Block

Original Signed By
William Johnson, President
and Project Manager
Washington River Protection Solutions

Original Signed By
Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09
Date
PBI-3.1 CLIN 3

Performance Based Incentive (PBI) Title: Modeling and planning to establish Technical Baseline

Performance Fee available and assigned to this PBI: $500,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>WRPS Manager:</th>
<th>WRPS POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Charboneau</td>
<td>Ben Harp</td>
<td>Chris Burrows</td>
<td>Chris Burrows/ Doug Greenwell</td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

The contractor is managerially and operationally in control of the Tank Farms and is meeting the mission performance expectations of the Department as stipulated within the contract. Operations are completed with increasing efficiency and effectiveness allowing more resources to be applied to mission critical work. The short and long term strategic planning and support activities are completed in a manner that incrementally improves mission performance.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Section B, "Supplies or Services and Prices/Costs."

Fee Bearing Milestones

1. Hanford Tank Waste Operations Simulation (HTWOS) model revision. The Contractor shall earn $100,000 of incremental fee upon completion.

Work scope/Completion Criteria: Complete a revision to the HTWOS model that can be used in developing the technical scope for baseline development by March 30, 2009. Prior to finalizing the assumptions used in the model, WRPS shall solicit input from the Department of Ecology for their input into baseline development.

Completion document: A letter report submitted to ORP describing the completion of the HTWOS model revision.

2. River Protection Project (RPP) Systems Plan revision. The Contractor shall earn $200,000 of incremental fee upon completion.

Work scope/Completion Criteria: Update the RPP System Plan to reflect HTWOS modeling results by May 31, 2009. Prior to finalizing the assumptions used in the model, WRPS shall solicit input from the Department of Ecology as input to the baseline priorities. This date assumes external influences do not prevent approval of the RPP systems plan.
Completion document: ORP approval of the RPP System Plan.


Work scope/Completion Criteria: Complete a plan that prioritizes and ensures the Tank Farm Waste Feed Delivery Systems and Double Shell Tank Upgrades required to support Waste Treatment Plant commissioning and operations are integrated into the Tank Farms baseline by July 30, 2009. Upgrades associated with Waste Treatment Plant commissioning and operations will be clearly identified separately from tank farm life extension upgrades. The upgrades will be developed based on the Systems Plan feed delivery schedule for the Waste Treatment Plant.

Completion document: ORP approval of the Tank Farm Waste Feed Delivery System and Double Shell Tank Upgrade plan.

PBI- 3.1 CLIN 3

Signature Block

Original Signed By

William Johnson, President and Project Manager
Washington River Protection Solutions

Original Signed By

Shirley Olinger, Manager
U.S. Department of Energy, Office of River Protection

1/14/09

Date
Workset Title 1:

Contract Reference - Deliverable C3.1.2.2-1 – Performance Measurement Baseline

Target Date:
30 September 2009

Award Fee:
$200K (submit of PMB on 01 June 2009)
$125K (completion of EIR and assistance in ESAAB deliverables on 30 September 2009)

Description

WRPS will develop a TOC Project Performance Measurement Baseline (PMB). The PMB is a Project contract performance period life-cycle integrated and traceable technical scope, schedule, and cost baseline that encompass the activities to execute the requirements of this Tank Operations Contract (DE-AC27-08RV14800), integrate the WTP scope and schedule, and complete the River Protection Project mission. The PMB shall include the following:

- Technical Scope. The following baseline documents will be viewed collectively as the technical scope for the PMB:
  - The Contract Section C, Statement of Work;
  - The River Protection Project System Plan;
  - Waste site and facility lists;
  - Approved Interface Control Documents (ICDs);
  - Work Breakdown Structure (WBS) dictionary sheets
- Integrated Project Schedule and
- Time-phased Project Period of Performance life-cycle cost estimate.

The PMB will comply with the following requirements:

- The scope, cost and schedule will be linked through use of the WBS approved by DOE-ORP. The WBS will encompass the activities required in this Contract and provide the basis for project control system components, including estimating, scheduling, budgeting, and project performance reporting. Control accounts within the WBS will be identified.
- The baseline and management will comply with; ANSI/EIA-748-A-1998 Earned Value Management Systems (EVMS), DOE O 413.3A, Program and Project Management for the Acquisition of Capital Assets, and DOE M 413.3-1, Project Management for the Acquisition of Capital Assets.
- The PMB schedule will:
  - Include significant external interfaces, TPA milestones, other regulatory and DNFSB commitments, and Government-Furnished Services and Information (GFSI) dependencies.
  - Be an integrated, logical network-based plan that correlates to the WBS, is vertically traceable to the EVMS control accounts, and successfully aligns the Tank Farm Project schedule with the WTP schedule. The schedule will be capable of summarizing from control accounts to higher WBS levels.
A working level schedule(s) will be developed for the execution year plus 6 additional months. The working level schedule(s) will be integrated with the PMB and able to provide earned value reporting in compliance with ANSI/EIA-748-A-1996 Earned Value Management Systems (EVMS).

• The PMB cost estimate will include project resource plans, detailed resource estimates, basis of estimates, budgetary requirements, and identification of direct costs, indirect costs, management reserve, and fee.

• The method used to determine earned value will be identified for each control account.

• The PMB will integrate with the:
  • Financial systems(s);
  • Budget formulation;
  • Regulatory, DOE, and Congressional commitments; and,
  • Performance milestones including contract performance incentives and other performance measures established by DOE-ORP.

Award Fee Criteria:

The award fee criteria is based on requirements set forth in DOE O 413.3A “Program and Project Management for the Acquisition of Capital Assets” and Contract No. DE-AC27-08RV14800, “Tank Operations Contract.”

Washington River Protection Solutions will earn fee based on:

• Completion of all required documents set forth in DOE O 413.3 and provided to ORP no later than June 1, 2009.

• The TOC Performance Measurement Baseline shall be life-cycle, integrated, and traceable to technical scope, schedule, and cost. The PMB will encompass all activities to execute the requirements of the Contract, integrate the WTP scope and schedule, and complete the River Protection Project mission. The Contract period PMB portion will be developed at a level that provides for traceability of all contract scope, activities, milestones and requirements in support of WTP startup.

• The WRPS Baseline Change Request will be a single document that includes all scope relative to PBS ORP-0014 “Radioactive Liquid Tank Waste Stabilization and Disposition Project” and PBS ORP-0014X-RV “Radioactive Liquid Tank Waste Stabilization and Disposition-Storage Operations Awaiting Geologic Repository”. The BCR shall include at a minimum the following components:
  - TOC Strategy Overview
  - Mission Constraints
  - Change Summary and Justification
  - TOC Baseline Scope and Assumptions
  - HTWOS Planning Assumptions and Modeling Results
  - Tank Sequence Table
  - TPA Impact Analysis and Approach
  - Project Risk Analysis
- Interface Control Documents
- Baseline Change Request Cost Tables
- Schedule Summary including SST Retrieval Sequence and identification of planned retrieval technology.

- Successfully complete the External Independent Review including completion/implementation of any corrective actions associated with the Contract period PMB and OECM requirements. Out-year Corrective Actions will require a response but may not require modifications to the baseline.

- Assist DOE-ORP in the External Independent Review and Energy Systems Acquisition Advisory Board (ESAAB) review of the submittal of the PMB and follow-on reviews of required updates.
Workset Title 2

EVMS Certification Readiness  Section C 3.1.1

Target Date –  
9/1/09 

Award Fee  
$325K 

Description

WRPS will have the TOC Project Earned Value Management System (EVMS) ready for evaluation against the ANSI (ANSI/EIA-748-A-1998) standard by a qualified, independent third party selected by the DOE Office of Engineering and Construction Management (DOE-OECM). The Project Control System Description (PCSD) that complies with the requirements of DOE O 413.3A, DOE M 413.3-1, and American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA)-748-A-1998 Earned Value Management Systems (EVMS) developed as part of the TOC Project Execution Plan will be the basis for the certification evaluation. Upon successful completion of the evaluation, DOE-OECM will certify the WRPS’s EVMS as compliant with the ANSI standard. Subsequent to the initial evaluation and certification, DOE-OECM may at any time require the Contractor to repeat the evaluation and certification process. The Contractor will provide the necessary support to conduct the initial and any subsequent evaluations and closure of corrective actions.

Completion Criteria

Successful acceptance is based on the following:

- The WRPS system will be documented by a system description and procedures that translate the Earned Value Management Policy into specific organizational approaches of how the 32 guidelines in ANSI/EIA-748-A-1998 will be executed.

- WRPS will successfully complete an EVMS Readiness Assessment with the Office of Engineering and Construction Management (OECM) and complete an on-site EVMS Certification Review with no major Corrective Action Requests. ORP expects that this will meet the requirements of EVMS Certification. The OECM letter will be issued as a direct result of WRPS efforts but neither ORP nor WRPS has control over this action.

- WRPS will maintain the Earned Value Management System as an integrated management system and ensure continuous improvement and maintain compliance with the ANSI/EIA-748-A standard.
Award Fee Criteria:

WRPS will develop and submit for approval a Tank Farm DSA amendment that fully implements the requirements of DOE-STD-3009 CN3, DOE-STD-1186, and DOE-STD-1189. The amendment will also incorporate the new evaluation guidelines identified in DOE-STD-1189.

The following activities are required to support this amendment:

- Develop a draft revision to the ‘Klein and Schepens Letter’ on the selection of TSR controls. The revision will incorporate the evaluation guidelines for co-located worker identified in DOE-STD-1189. The revision will be issued by ORP for use in developing the DSA amendment.

- Revise the Hazard Analysis Database to define the event, use the SARAH criteria to screen events for significant facility worker consequences, use the revised ‘Klein and Schepens Letter’ to screen events for co-located worker, and use a fifteen (15) minutes average consequence versus the current one (1) minute consequence for comparing the toxicological consequences to the guidelines.

- Based on the results of the Hazard Analysis Database, conduct control decision meetings to select TSR controls and defense-in-depth controls.

- Develop DSA amendment for Chapters 2, 3, 4, and 5 to incorporate the revision to the Hazard Analysis Database and the control decision meetings. The DSA amendment will meet the requirements for format and content identified in DOE-STD-3009 CN3, DOE-STD-1186, and DOE-STD-1189.

- Submit email draft of DSA amendment to ORP for comment disposition.

- Resolve comments and submit DSA amendment for approval.
Acceptance Criteria:

- DSA Amendment that incorporates the requirement of DOE-STD-3009 CN3, DOE-STD-1186 and DOE-STD-1189 submitted to ORP for approval with all ORP comments resolved.

- Revision to TFC-ENG-SB-C-06 (Safety Basis Development) that aligns with requirements of DOE-STD-3009 CN3 and DOE-STD-1186 and DOE-STD-1189.