AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2. AMENDMENT/MODIFICATION NO.  
A147

3. EFFECTIVE DATE  (M/D/Y)  
See Block 16C

4. REQUISITION/PURCHASE REQ. NO. 

5. PROJECT NO.  (If applicable) 

6. ISSUED BY  CODE 

U.S. Department of Energy  
Office of River Protection  
P. O. Box 450, MS H6-60  
Richland, WA  99352

7. ADMINISTERED BY  (If other than Item 6)  CODE 

Cloette B. Reid  
509-373-6140  
Cloette_b_reid@orp.doe.gov

8. NAME AND ADDRESS OF CONTRACTOR  (No., street, county, State and ZIP code)  

CH2M HILL Hanford Group, Inc.  
P.O. Box 1500  
Richland, WA  99352

9A. AMENDMENT OF SOLICITATION NO. 

CH2M HILL Hanford Group, Inc.  
P.O. Box 1500  
Richland, WA  99352

9B. DATED  (SEE ITEM 11)  

October 1, 1999

10A. MODIFICATION OF CONTRACT/ORDER NO.  
DE-AC27-99RL14047

10B. DATED  (SEE ITEM 13) 

October 1, 1999

11. THIS ITEM APPLIES TO AMENDMENTS OF SOLICITATIONS  

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning ___ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE DATE AND HOUR SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and amendment and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA  (if required) 

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

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.

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).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF:  
Contract Clause I.65, FAR 52.243-2 Changes-Cost Reimbursement (AUG 1987) – Alternate II (APR 1984)

D. OTHER  (Specify type of modification and authority)

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

14. DESCRIPTION OF AMENDMENT/MODIFICATION  (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  

A. The purpose of this modification is to amend Section J, Appendix D, Performance Based Incentives (PBIs), PBIs 1 and 3.

See following page(s)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER  (Type or print)  
Daniel B. Cartmell,  
Vice President and Chief Financial Officer

16A NAME AND TITLE OF CONTRACTING OFFICER  (Type or print)  
Cloette B. Reid, Contracting Officer

15B. CONTRACTOR/OFFEROR ORIGINAL SIGNED BY  
(Signature of person authorized to sign)  
12/13/07

15C. DATE SIGNED  
12/13/07

16B. UNITED STATES OF AMERICA ORIGINAL SIGNED BY  
(Signature of Contracting Officer)  
12/13/07

16C. DATE SIGNED
B. Description of Modification:

1. The scope of work for PBI 3 is Waste Retrieval of Single-Shell Tanks. The incentivized milestones and associated **acceleration fee** for work scope to complete waste retrievals from additional single-shell tanks are hereby deleted in their entirety as follows:

<table>
<thead>
<tr>
<th>PBI No.</th>
<th>Milestones</th>
<th>Acceleration Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.a.4</td>
<td>Retrieval of 75% of the waste by volume</td>
<td>$450,000</td>
</tr>
<tr>
<td>3.3.a.5</td>
<td>Completion of retrieval operations</td>
<td>$450,000</td>
</tr>
<tr>
<td>3.3.a.6</td>
<td>Complete Retrieval Data Report</td>
<td>$100,000</td>
</tr>
<tr>
<td>3.3.b.6</td>
<td>Complete Retrieval Data Report</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

**TOTAL** $1,100,000

2. Additional work scope and corresponding **acceleration fee** for PBI 1.4 for the performance of DST volume reductions supporting SST retrieval utilizing 242-A Evaporator operations follows:

<table>
<thead>
<tr>
<th>PBI No.</th>
<th>Milestones</th>
<th>Acceleration Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4.c</td>
<td>A 242 Evaporator campaign that treats at least 650,000 gals. As measured in the feed tank by September 30, 2008</td>
<td>$250,000</td>
</tr>
<tr>
<td>1.4.d</td>
<td>A 242-A Evaporator campaign that treats at least 650,000 gals. As measured in the feed tank by September 30, 2008</td>
<td>$250,000</td>
</tr>
<tr>
<td>1.4.e</td>
<td>Blend the high sulfate waste in AZ-102 with high sodium (Na) tank waste supernate in AW-102, AP-107, and AW-106</td>
<td>$350,000</td>
</tr>
<tr>
<td>1.4.f</td>
<td>Remove pumpable liquids from Catch Tank S-302 in accordance with ORP approved liquid mitigation plan</td>
<td>$250,000</td>
</tr>
</tbody>
</table>

**Total** $1,100,000

Upon completion, the Contractor will be paid acceleration fee in accordance with Contract Clause H.1 (f).

3. Amended PBIs and Completion Criteria for PBIs 1 & 3 are attached.

C. All other terms and conditions of this contract remain the same.

…………..**Attached documents are not numbered pages of this modification but are incorporated into the contract.** ……….
PBI-3  
Performance Based Incentive (PBI) Title: Single-Shell Tank (SST) Waste Retrieval

Performance Fee available and assigned to this PBI: $11,350,000

<table>
<thead>
<tr>
<th>ORP Assistant Manager:</th>
<th>ORP POC:</th>
<th>CH2M Manager:</th>
<th>CH2M POC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>T Smith</td>
<td>D Noyes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Desired Endpoint/Outcome

Complete interim retrieval activities that meet and/or exceed requirements established in the Hanford Federal Facility Agreement and Consent Order (HFFACO) or Tri-Party Agreement M-45 series milestones and Appendix I, Single-Shell Tank System Waste Retrieval and Closure Process. The Contractor is responsible for establishing the technical and regulatory pathway for tank farm retrieval (including National Environmental Policy Act, M-45 requirements, U.S. Department of Energy (DOE) Order 435.1, “Radioactive Waste Management,” requirements, etc.). Additionally, the Contractor will develop and demonstrate the retrieval capability including the use of risk-informed approaches to properly align the retrieval, and closure approaches with the risk associated with the wastes in each tank.

Fee Payment Schedule

Upon completion of each fee bearing milestone set forth herein, Contractor will be paid incremental fee, in accordance with Contract Clause H.2, “Provisional and Incremental Payments of Fee.”

The fee bearing milestones shall be completed by the delivery schedule date. If the delivery schedule date is not achieved the unearned fee will be reduced to the following amounts: 90% for first quarter, 80% for second quarter, 50% for third quarter, and entire amount for one year.

Fee Bearing Milestones

“Complete waste retrieval” shall mean completion to the goals of the HFFACO and submittal of the retrieval data report in accordance with Appendix I or with ORP concurrence, the appropriate Appendix H documentation.

1. Complete Waste Retrievals from the following SSTs that are in progress. Performance Fee: $5,350,000
   a. Complete waste retrieval of C-204 by September 30, 2007. The Contractor shall earn $325,000 of incremental fee at the completion of retrieval.
   c. Complete waste retrieval of S-102 by September 30, 2008. The Contractor shall earn $4,000,000 incremental fee at the following completion points. Completion of retrieval operations on or before March 31, 2007 (HFFACO milestone M-45-05A). The Contractor shall earn an additional $500,000 in Acceleration Fee.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Incremental Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Completion of Construction and operational acceptance testing of a new retrieval technology or technique consistent with the approved Functions and Requirement or equivalent document.</td>
<td>$750,000</td>
</tr>
</tbody>
</table>
2. Complete Waste Retrievals from additional SSTs. Performance Fee: $6,000,000

a. Complete waste retrieval of next new start C-Farm SST, (C-108 or other C Farm SST with ORP concurrence) by September 30, 2008. The Contractor shall earn $3,000,000 of incremental fee at the following completion points.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Incremental Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Completion of Construction and operational acceptance testing consistent with the approved Tank Waste Retrieval Work Plan.</td>
<td>$500,000</td>
</tr>
<tr>
<td>2 Retrieval of 25% of the waste by volume</td>
<td>$500,000</td>
</tr>
<tr>
<td>3 Retrieval of 50% of the waste by volume</td>
<td>$500,000</td>
</tr>
<tr>
<td>4 Retrieval of 75% of the waste by volume</td>
<td>$500,000</td>
</tr>
<tr>
<td>5 Completion of retrieval operations</td>
<td>$900,000</td>
</tr>
<tr>
<td>6 Complete Retrieval Data Report</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

b. Complete waste retrieval of next new start C-Farm SST after 2.a. (C-109 or other C Farm SST with ORP concurrence) by September 30, 2008. The Contractor shall earn $3,000,000 of incremental fee at the following completion points.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Incremental Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Completion of Construction and operational acceptance testing consistent with the approved Tank Waste Retrieval Work Plan</td>
<td>$500,000</td>
</tr>
<tr>
<td>2 Retrieval of 25% of the waste by volume</td>
<td>$500,000</td>
</tr>
<tr>
<td>3 Retrieval of 50% of the waste by volume</td>
<td>$500,000</td>
</tr>
<tr>
<td>4 Retrieval of 75% of the waste by volume</td>
<td>$500,000</td>
</tr>
<tr>
<td>5 Completion of retrieval operations</td>
<td>$900,000</td>
</tr>
<tr>
<td>6 Complete Retrieval Data Report</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

c. Completion of retrieval operations and demonstration that the TPA volume goal has been achieved for new start retrievals identified in milestones 2.a, and/or 2.b utilizing HFFACO approved Data Quality Objectives. The Contractor shall earn an additional $500,000 in Acceleration Fee for each retrieval (2.a and/or 2.b).

3. Complete Waste Retrievals from additional SSTs.

a. Complete waste retrieval of new start C-Farm SST after 2.a and 2.b. (C-110 or other C Farm SST categorized as an assumed leaker with ORP concurrence) by September 30, 2008. The retrieval technology/technique shall be designed for use in a 100 series SST which has assumed to leaked. The Contractor shall earn $3,000,000 acceleration fee at the following completion points.
**Milestones** | **Acceleration Fee**
---|---
1 | Completion of Construction and operational acceptance testing consistent with the approved Tank Waste Retrieval Work Plan | $1,000,000
2 | Retrieval of 25% of the waste by volume | $1,500,000
3 | Retrieval of 50% of the waste by volume | $500,000

b. Complete waste retrieval of new start C-Farm SST after 2.a and 2.b. (C-104 or other C Farm SST with ORP concurrence) by September 30, 2008. The Contractor shall earn $3,900,000 acceleration fee at the following completion points.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Acceleration Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Completion of Construction and operational acceptance testing consistent with the approved Tank Waste Retrieval Work Plan</td>
</tr>
<tr>
<td>2</td>
<td>Retrieval of 25% of the waste by volume</td>
</tr>
<tr>
<td>3</td>
<td>Retrieval of 50% of the waste by volume</td>
</tr>
<tr>
<td>4</td>
<td>Retrieval of 75% of the waste by volume</td>
</tr>
<tr>
<td>5</td>
<td>Completion of retrieval operations</td>
</tr>
</tbody>
</table>

**Government Furnished Services/Items (GFS/I)**

Provide DOE review/approval of HFFACO deliverables within 15 working days of receipt, except as specified below.

The Office of River Protection (ORP) will respond to all other Contractor submittals (e.g., Authorization Basis, Safety Analysis Reports, Baseline Change Requests) required to complete this activity within 15 working days provided the submittals are complete and ORP is provided with reasonable notice of the intent to submit.

If Critical Decision process is required, then action will be taken by the ORP decision authority within 15 working days of submittal. If the decision authority is at DOE Headquarters then action will be taken by the DOE Headquarters decision authority within 30 working days of submittal.

**Definitions**

“GFS/I” are those work elements that the DOE commits to perform to support the completion of this PBI. If DOE cannot provide GFS/I as described herein, then it shall be treated as a change in accordance with Contract Clause I.64, Federal Acquisition Regulation 52.243-2, “Changes-Cost Reimbursement, Alt II.”

The Retrieval Report, as defined in Tank Farm Procedure TFC-ENG-CHEM-P-47, Rev A-1, January 20, 2005, Single-Shell Tank Retrieval Completion Evaluation, will be submitted to the ORP at the completion of bulk retrieval operations documenting technical information upon which the decision to cease retrieval operations was based.

The Tank Waste Retrieval Work Plan shall be developed in accordance with the HFFACO Appendix I.

Tank Farm Procedure TFC-PRJ-PM-C-03, Project Tailoring Approach, will be utilized to determine project delivery and execution requirements.
Signature Block

_________________________________________________ ________________  Date
John C. Fulton, President
and Chief Executive Officer,
CH2M HILL Hanford Group, Inc.

_________________________________________________ ________________  Date
Shirley J. Olinger, Manager
U.S. Department of Energy, Office of River Protection
Completion Criteria
PBI-3 Single-Shell Tank (SST) Retrieval

1. Complete Waste Retrievals from the following SSTs that are in progress:

e. Complete waste retrieval of C-204.
   • Work scope/completion criteria: “Complete waste retrieval” shall mean completion to the goals of the HFFACO for residuals and submittal of the Retrieval Data Report in accordance with Appendix I or the appropriate Appendix H documentation.
   • Completion document: Submit the Retrieval Data Report for 241-C-204 documenting the completion of retrieval operations. With ORP concurrence, an Appendix H exception request may be issued in lieu of a Retrieval Data Report in accordance with HFFACO Appendix I. If the limits of waste retrieval technology capability is reached; the volume goal have not been achieved; and it is determined, with ORP concurrence, that the Appendix H documentation is not appropriate, the submittal of the Retrieval Report shall be the completion criteria of “complete waste retrieval”.

f. Complete waste retrieval of C-103.
   • Work scope/completion criteria: “Complete waste retrieval” shall mean completion to the goals of the HFFACO for residuals and submittal of the Retrieval Data Report in accordance with Appendix I or the appropriate Appendix H documentation. If the limits of waste retrieval technology capability is reached; the volume goal have not been achieved; and it is determined, with ORP concurrence, that the Appendix H documentation is not appropriate, the submittal of the Retrieval Report shall be the completion criteria of “complete waste retrieval”.
   • Completion document: The 241-C-103 Retrieval Data Report, Appendix H exception, or Retrieval Report as identified in the completion criteria.

g. Complete waste retrieval of S-102. The tank contains approximately 211,000 gallons of the initial 465,000 gallons of a mixture of Salt and Sludge materials. New retrieval technology/technique for use in this SST as needed to complete the retrieval. New technology/technique will be developed, implemented into the appropriate regulatory documentations, constructed, and retrieval completed.

Milestones

1. Completion of Construction and operational acceptance testing of a new retrieval technology or technique consistent with an approved Functions and Requirements or equivalent document.
   • Work scope/completion criteria: Complete waste retrieval system construction and turnover to operations. Operations related OTP will be completed and OTRs will be approved by the Contractor. The Construction Completion Documents, Section I1b, “Completion of Exceptions,” will be completed and approved by the Contractor, including Operations. References: 1) S-102 Initial Waste Retrieval Functions and Requirements 2) Construction Completion and Turnover, TFC-PRJ-CM-C-08, Rev B, issued May 8, 2006.
   • Completion Document: Contractor approved, including Operations, Construction
Completion Document through Section IIb, “Completion of Exceptions” for the above listed work.

<table>
<thead>
<tr>
<th>2. Retrieval of 65% of the waste by volume.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. The retrieval of 65% 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.</td>
</tr>
<tr>
<td>• Completion document: The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 65% of the initial waste volume.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Retrieval of 80% of the waste by volume.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. The retrieval of 80% 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.</td>
</tr>
<tr>
<td>• Completion document: The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 80% of the initial waste volume.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Completion of retrieval operations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work scope/completion criteria: Complete waste retrieval to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones for residues. If the limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has not been achieved, then implementation of additional retrieval technologies is within the scope.</td>
</tr>
<tr>
<td>• Completion document: Retrieval Report documenting the completion of retrieval operations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Complete Retrieval Data Report.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work scope/completion criteria: The limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has been achieved. Perform residual characterization and volumetric measurements and prepare a Retrieval Data Report in accordance with HFFACO, Appendix I.</td>
</tr>
<tr>
<td>• Completion document: Retrieval Data Report in accordance with HFFACO, Appendix I.</td>
</tr>
</tbody>
</table>

(Note: With ORP concurrence, an Appendix H exception may be issued in lieu of a Retrieval Data Report. In this case, fee allowed for the Retrieval Data Report would be provided for the Appendix H exception. This incentive is forfeited if the volume goal is not achieved and ORP does not concur with proceeding with an Appendix H exception.)
Completion of retrieval operations on or before March 31, 2007 (HFFACO milestone M-45-05A).

- Work scope/completion criteria: Complete waste retrieval on or before March 31, 2007 to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones for residues and demonstration of the limit of the waste retrieval technology. If the limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has not been achieved, then implementation of additional retrieval technologies is within the scope.

- Completion document: Retrieval Report documenting the completion of retrieval operations.

h. Complete waste retrieval of S-112. The tank contains approximately 5,000 gallons of the initial 655,000 gallons of a mixture of Salt and Sludge materials. New retrieval technology/technique for use in this SST are needed to complete the retrieval. New technology/technique will be developed, implemented into the appropriate regulatory documentations, constructed, and retrieval completed.

### Milestones

1. Completion of retrieval operations.

- Work scope/completion criteria: Complete waste retrieval to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones for residues. If the limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has not been achieved, then implementation of additional retrieval technologies is within the scope.

- Completion document: Retrieval Report documenting the completion of retrieval operations.

2. Complete Retrieval Data Report.

- Work scope/completion criteria: The limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has been achieved. Perform residual characterization and volumetric measurements and prepare a Retrieval Data Report in accordance with HFFACO, Appendix I.

- Completion document: Retrieval Data Report in accordance with HFFACO, Appendix I.

(Note: With ORP concurrence, an Appendix H exception may be issued in lieu of a Retrieval Data Report. In this case, fee allowed for the Retrieval Data Report would be provided for the Appendix H exception. This incentive is forfeited if the volume goal is not achieved and ORP does not concur with proceeding with an Appendix H exception.)

2. Complete Waste Retrievals from additional SSTs

a. 

### Milestones

1. Completion of Construction and operational acceptance testing of the waste retrieval system approved Tank Waste Retrieval Work Plan.

- Work scope/completion criteria: Complete waste retrieval system construction and turnover to operations. Operations related OTP will be completed and OTRs will be approved by the Contractor. 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, issued May 8, 2006.

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

### 2. Retrieval of 25% of the waste by volume.

- Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Retrieval of 50% of the waste by volume.

- Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Retrieval of 75% of the waste by volume.

- Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Completion of retrieval operations.

- 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 demonstration of the limit of the waste retrieval technology. If the limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has not been achieved, then implementation of additional retrieval technologies is beyond the scope of this incentive.
- Completion document: Retrieval Report documenting the completion of retrieval operations.

- Work scope/completion criteria: The limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has been achieved. Perform residual characterization and volumetric measurements and prepare a Retrieval Date Report in accordance with HFFACO, Appendix I.

- Completion document: Retrieval Data Report in accordance with HFFACO, Appendix I.

(Note: With ORP concurrence, an Appendix H exception may be issued in lieu of a Retrieval Data Report. In this case, fee allowed for the Retrieval Data Report would be provided for the Appendix H exception. This incentive is forfeited if the volume goal is not achieved and ORP does not concur with proceeding with an Appendix H exception.)

b.

1. Completion of Construction and operational acceptance testing of the waste retrieval system approved Tank Waste Retrieval Work Plan.

   - Work scope/completion criteria: Complete waste retrieval system construction and turnover to operations. Operations related OTP will be completed and OTRs will be approved by the Contractor. 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, issued May 8, 2006.

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

2. Retrieval of 25% of the waste by volume.

   - Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Retrieval of 50% of the waste by volume.

   - Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Retrieval of 75% of the waste by volume.

- Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Completion of retrieval operations.

- 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 demonstration of the limit of the waste retrieval technology. If the limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has not been achieved, then implementation of additional retrieval technologies is beyond the scope of this incentive.

- Completion document: Retrieval Report documenting the completion of retrieval operations.


- Work scope/completion criteria: The limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has been achieved. Perform residual characterization and volumetric measurements and prepare a Retrieval Date Report in accordance with HFFACO, Appendix I.

- Completion document: Retrieval Data Report in accordance with HFFACO, Appendix I.

(Note: With ORP concurrence, an Appendix H exception may be issued in lieu of a Retrieval Data Report. In this case, fee allowed for the Retrieval Data Report would be provided for the Appendix H exception. This incentive is forfeited if the volume goal is not achieved and ORP does not concur with proceeding with an Appendix H exception.)

c. Completion of retrieval operations and demonstration that the TPA volume goal has been achieved for new start retrievals identified in milestones 2.a and/or 2.b utilizing HFFACO approved Data Quality Objectives.

- Work scope/completion criteria: Complete waste retrieval to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones for residues (specifically including the 360 cubic feet volume goal) and demonstration of the limit of the waste retrieval technology. The residual volume shall be determined using the HFFACO approved methodology. Physical samples shall be taken in accordance with the HFFACO sampling methodology, but the sample’s analytical report and Retrieval Data Report are not within the work scope.
3. Initiate Waste Retrievals from additional SSTs.

a.

**Milestones**

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<tr>
<td>1.</td>
<td>Completion of Construction and operational acceptance testing of the waste retrieval system approved Tank Waste Retrieval Work Plan.</td>
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<tr>
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<td>Work scope/completion criteria: Complete waste retrieval system construction and turnover to operations. Operations related OTP will be completed and OTRs will be approved by the Contractor. 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, issued May 8, 2006.</td>
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<td>Completion Document: Contractor approved, including Operations, Construction Completion Document through Section IIb, “Completion of Exceptions” for the above listed work.</td>
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<td>2.</td>
<td>Retrieval of 25% of the waste by volume.</td>
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<td>Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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.</td>
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<td>Completion document: The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 25% of the initial waste volume.</td>
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<tr>
<td>3.</td>
<td>Retrieval of 50% of the waste by volume.</td>
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<td>Work scope/completion criteria: Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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.</td>
</tr>
<tr>
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<td>Completion document: The submittal of material balance data and engineering calculations summary information demonstrating retrieval of 50% of the initial waste volume.</td>
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b.

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

### 2. Retrieval of 25% of the waste by volume.

- **Work scope/completion criteria:** Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Retrieval of 50% of the waste by volume.

- **Work scope/completion criteria:** Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Retrieval of 75% of the waste by volume.

- **Work scope/completion criteria:** Perform waste retrieval activities to meet and/or exceed performance requirements in the HFFACO M-45-00 series milestones and the Tank Waste Retrieval Work Plan. 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. Completion of retrieval operations.

- 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 demonstration of the limit of the waste retrieval technology. If the limit of the waste retrieval technology is reached and the M-45-00 residual volume goal has not been achieved, then implementation of additional retrieval technologies is beyond the scope of this incentive.

- Completion document: Retrieval Report documenting the completion of retrieval operations.
PBI-1

Performance Based Incentive (PBI) Title: Improve Performance of Tank Farms Personnel, Equipment, and Procedures (infrastructure) for the Long Term ORP Mission.

Performance Fee available and assigned to this PBI: $8,900,000

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<tr>
<th>ORP Assistant Manager:</th>
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<th>CH2M Manager:</th>
<th>CH2M POC:</th>
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<tr>
<td>T. Smith</td>
<td>D. Noyes</td>
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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 Clause H.2, “ Provisional and Incremental Payments of Fee.”

The fee bearing milestones shall be completed by the delivery schedule date. If the delivery schedule date is not achieved the unearned fee will be reduced to the following amounts: 90% for first quarter, 80% for second quarter, 50% for third quarter, and entire amount for one year.

Fee Bearing Milestones

1. Vadose Zone and Surface Geophysical Exploration. Performance fee $2,500,000.
   a. Complete the near-surface vadose zone characterization utilizing the hydraulic hammer direct push technology for 35 direct push samples by September 30, 2007. The Contractor shall earn $300,000 in incremental fee.
   b. Complete the near-surface vadose zone characterization utilizing the hydraulic hammer direct push technology for 35 direct push samples by September 30, 2008. The Contractor shall earn $300,000 in incremental fee.
   c. Deploy Surface Geophysical Exploration in two of the following 4 tank farms TX, TY, U, and B (B Farm includes B, BX, and BY) by September 30, 2007. The Contractor shall earn $375,000 in incremental fee.
   d. Deploy Surface Geophysical Exploration in the remaining two tank farms not completed in 1.c above by September 30, 2008. The Contractor shall earn $375,000 in incremental fee.
   e. Construct surface barrier over T-106 tank and associate affected area or other area with ORP concurrence by September 30, 2007. The Contractor shall earn $375,000 in incremental fee.
   f. Construct one borehole, perform sampling and borehole decommission or 25 direct push samples by September 30, 2008. The Contractor shall earn $375,000 in incremental fee.
   g. Complete the Phase I RCRA Field Investigation (RFI) Report. The fee is forfeited if the work is not completed on or before the HFFACO milestone due date of January 31, 2008. The contractor shall earn $200,000 in incremental fee.
h. Complete the Corrective Measure Study (CMS) for corrective measures for Waste Management Area C. The fee is forfeited if the work is not completed on or before the HFFACO milestone due date of September 30, 2008. The Contractor shall earn $200,000 in incremental fee.

2. Complete Double-Shell Tank (DST) Integrity Testing. Performance Fee $1,100,000.
   a. Complete DST integrity testing including Ultrasonic testing (UT) and video examination of 4 DST. The fee is forfeited if the work is not completed on or before the HFFACO milestone due date. The Contractor shall earn $600,000 in incremental fee.
   b. Complete DST integrity testing including UT and video examination of 3 DST (in addition to the DST in 2.a) in support of continuing integrity testing of DSTs by September 30, 2008. The Contractor shall earn $500,000 in incremental fee.

3. Tank Chemistry optimization in double-shell tanks AN-102 and AN-107. Performance Fee $300,000.
   a. Chemistry optimization AN-107 and implementation of revised chemistry limits by September 30, 2008. The Contractor shall earn $200,000 in incremental fee.
   b. Chemistry optimization AN-102 and closure of the existing Technical Safety Requirements recovery plan by September 30, 2008. The Contractor shall earn $100,000 in incremental fee.

4. DST volume reductions supporting SST retrieval utilizing 242-A Evaporator operations. Performance fee $2,000,000.
   a. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank by September 30, 2007. The Contractor shall earn $1,000,000 in incremental fee.
   b. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank by September 30, 2008. The Contractor shall earn $1,000,000 in incremental fee.
   c. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank by September 30, 2008. The Contractor shall earn $250,000 in acceleration fee.
   d. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank by September 30, 2008. The Contractor shall earn $250,000 in acceleration fee.
   e. Blend the high sulfate waste in AZ-102, with high sodium (Na) tank waste supernate in AW-102, AP-107, and AW-106. The Contractor shall earn $350,000 in acceleration fee.
   f. Remove pumpable liquids from Catch Tank S-302 in accordance with ORP approved liquid mitigation plan. The Contractor shall earn $250,000 in acceleration fee.

5. Complete 242-A Evaporator and Double-Shell Tank Integrity Assessment. Performance fee $3,000,000.
   a. Complete the 242-A Evaporator integrity assessment field inspections in accordance with WAC 173-303-640 (2) and considering the recommendation of the 1998 242-A Interim Evaporator Tank System Integrity Assessment Report, HNF-2905, Rev. 0 by September 30, 2008. The Contractor shall earn $750,000 in incremental fee.
   b. Complete the field pressure testing of five (5) double-shell tank transfer lines encasements by September 30, 2008. The Contractor shall earn $750,000 of incremental fee.
   c. Complete 3 core samples and analysis in support to the Double-Shell Tank System chemistry control by September 30, 2007. The contractor shall earn $500,000 of incremental fee.
d. Complete 3 core samples in support to the Double-Shell Tank System chemistry control by September 30, 2008. The contractor shall earn $500,000 of incremental fee.

e. Complete 5 grab samples and analysis in support to the Double-Shell Tank System chemistry control by September 30, 2007. The contractor shall earn $250,000 of incremental fee.

f. Complete 5 grab samples in support to the Double-Shell Tank System chemistry control by September 30, 2008. The contractor shall earn $250,000 of incremental fee.

PBI-1
Signature Block

_________________________________________________ ________________
John C. Fulton, President
and Chief executive Officer
CH2M HILL Hanford Group, Inc.

_________________________________________________ ________________
Shirley J. Olinger, Manager
U.S. Department of Energy, Office of River Protection
Completion Criteria

PBI-1 Improve Performance of Tank Farm Personnel, Equipment, and Procedures (Infrastructure) for the Long-Term ORP Mission

6. Vadose Zone and Surface Geophysical Exploration (SGE) Technology.

   a. Complete the near-surface vadose zone characterization utilizing the hydraulic hammer direct push technology for 35 direct push samples.
      
      Work scope/completion criteria: Complete the near-surface vadose zone characterization utilizing the hydraulic hammer/direct push technology as per work plans developed in coordination with the site wide ground water protection program and approved by ORP which shall include geophysical logging of direct push probes and obtaining shallow soil samples using direct push technology for geochemical analysis.
      
      Completion document: Samples collected per work plan and report of analytical results submitted to the ORP.

   b. Complete the near-surface vadose zone characterization utilizing the hydraulic hammer direct push technology for 35 direct push samples.
      
      Work scope/completion criteria: Complete the near-surface vadose zone characterization utilizing the hydraulic hammer/direct push technology as per work plans developed in coordination with the site wide ground water protection program and approved by ORP which shall include geophysical logging of direct push probes and obtaining shallow soil samples using direct push technology for geochemical analysis.
      
      Completion document: Samples collected per work plan and report of analytical results submitted to the ORP.

   c. Deploy Surface Geophysical Exploration in two of the following tank farms TX, TY, U, and B (B Farm includes B, BX, and BY).
      
      Work scope/completion criteria: Deploy SGE technology in selected farms. Develop and demonstrate performance of SGE technology in accordance with work plans integrated with the site wide ground water protection program and approved by ORP in coordination with the groundwater integration program for the selected Tank Farms. The work plans will produce an SGE performance assessment report detailing the capability of the technology to identify contamination sources, estimate of contamination volumes, depths, and inventories.
      
      Completion document: An SGE performance assessment report submitted to ORP detailing the capability and results of the technology application to identify the contamination sources, volumes, and inventories for the selected tank farms.

   d. Deploy Surface Geophysical Exploration in remaining two tank farms not completed in 1.c.
      
      Work scope/completion criteria: Deploy SGE technology in selected farms. Develop and demonstrate performance of SGE technology in accordance with work plans integrated with the site wide ground water protection program and approved by ORP in coordination with the groundwater integration program for the remaining two Tank Farms. The work plans will produce a SGE performance assessment report detailing the capability of the
technology to identify contamination sources, estimate of contamination volumes, depths, and inventories.

- Completion document: An SGE performance assessment report submitted to ORP detailing the capability and results of the technology application to identify the contamination sources, volumes, and inventories for the remaining tank farms.

e. Construct surface barrier over T-106 tank and associate affected area or other area with ORP concurrence.

- Work scope/completion criteria: Construct one surface barrier over single-shell tank T-106. The barrier shall be greater than 1 acre designed to control infiltration greater than 25 years with limited maintenance.

- Completion document: Letter transmitting work package documenting completion of installation of a surface barrier that meets or exceeds the completion criteria.

f. Construct one borehole, perform sampling and borehole decommission or 25 direct push samples.

- Work scope/completion criteria: Construct one borehole, perform sampling and borehole decommission. The borehole shall be located as per the Integrated Approved Workplan with specifications for characterization and decommissioning similar to currently approved TPA workplans. Alternately if using direct push, complete the near-surface vadose zone characterization utilizing the hydraulic hammer/direct push technology as per work plans developed in coordination with the site wide ground water protection program and approved by ORP which shall include geophysical logging of direct push probes and obtaining shallow soil samples using direct push technology for geochemical analysis.

- Completion document: Letter report documenting completion of construction of one borehole, sample chain of custody records, and borehole decommission. Alternately if using direct push, samples collected per work plan and report of analytical results submitted to the ORP.

g. Complete the Phase I RCRA Field Investigation (RFI) Report.

- Work scope/completion criteria: The Phase 1 RCRA Field Investigation Report integrating the data gathering activities and evaluations for all single-shell tanks waste management areas. The identified data gaps, results of science and technology, deep vadose zone inventory, conceptualization and modeling must be consistent and integrated with the groundwater integration effort. The documents shall meet or exceed the RCRA requirements and HFFACO milestone M-045-55 by January 31, 2008. The fee is forfeited if the work is not completed on or before the HFFACO milestone due date.

- Completion document: The Phase 1 RCRA Field Investigation Report integrating the data gathering activities and evaluations for all single-shell tanks waste management areas.

h. Complete the Corrective Measure Study (CMS) for interim corrective measures for Waste Management Area C.

- Work scope/completion criteria: The RCRA Corrective Measures Study for corrective measures for waste management area C. The document shall include treatability evaluations, in the areas of deep vadose zone mitigation, must be an integrated effort approved by ORP in coordination with the groundwater integration effort. The documents shall meet or exceed the RCRA requirements and HFFACO milestone M-045-58 by
September 30, 2008. The fee is forfeited if the work is not completed on or before the HFFACO milestone due date.

- Completion document: The RCRA Corrective Measures Study for corrective measures for waste management area C.

   a. Complete DST integrity testing including Ultrasonic testing (UT) and video examination of 4 DST. The fee is forfeited if the work is not completed on or before the HFFACO milestone due date.
      - Work scope/completion criteria: Complete and document DST Integrity Testing, including DST UT, and video examinations of four DSTs per the requirement of HFFACO Milestone M-48-15.
      - Completion document: Issue of Four (4) DST ultrasonic testing and video examination reports to the ORP for transmittal to the State of Washington Department of Ecology (Ecology) by September 30, 2007, to meet HFFACO Milestone M-48-15. (Two (2) DSTs of the six (6) UT reports required for M-48-15 will be completed in FY 2006.)
   b. Complete DST integrity testing including UT and video examination of 3 DST (in addition to the DST in 3.a) in support of continuing integrity testing of DSTs.
      - Work scope/completion criteria: Complete DST Integrity Testing, including DST UT, and video examinations of three DSTs, per same technical requirement as those performed for M-48-15, in support of continuing integrity testing of DSTs.
      a. Completion document: Issue three (3) DST Ultrasonic testing and video examination reports to the ORP.

8. Tank Chemistry optimization in double-shell tanks AN-102 and AN-107.
   a. Chemistry optimization AN-107 and implementation of revised chemistry limits.
      - Work scope/completion criteria: Required activities include AN-107 corrosion probe turnover and monitoring, removal of corrosion coupons for forensic examination, if required, submittal of a tank waste chemistry safety basis amendment and the implementation of the safety basis amendment.
      - Completion document: Implementation of the safety basis amendment and completion of all actions of Tank 241-AN-107 Recovery Plan, Rev 0. Letter notifying ORP of completion.
   b. Chemistry optimization AN-102 and closure of the existing Technical Safety Requirements recover plan.
      - Work scope/completion criteria: Required activities include grab sampling, core sampling, and caustic additions, if required, associated with a technical safety requirement (TSR) recovery plan for low hydroxide in the waste solids; and implementation of revised waste chemistry limits.
      - Completion document: Letter report to ORP documenting completion of all required actions due prior to September 30, 2008 of Tank 241-AN-102 Recovery Plan, Rev 6 or latest revision as of September 30, 2007.

9. DST volume reductions supporting SST retrieval utilizing 242-A evaporator operations.
a. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank.

- Work scope/completion criteria: Operate the 242-A evaporator as a key component of the transfer and treatment system for tank farms to meet or exceed 650,000 gals of feed by volume as measured in the feed tank. 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). This Evaporator campaign and that of 4.b shall be scheduled to ensure maintenance of sufficient proficiency of Tank Farm personnel operating the evaporator and to avoid the need for an Operational Readiness Review.

- Completion document: Letter report documenting that the feed volume has been achieved and summarizing the volume reduction results.

b. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank.

- Work scope/completion criteria: Operate the 242-A evaporator as a key component of the transfer and treatment system for tank farms to meet or exceed 650,000 gals of feed by volume as measured in the feed tank. 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). This Evaporator campaign and that of 4.b shall be scheduled to ensure maintenance of sufficient proficiency of Tank Farm personnel operating the evaporator and to avoid the need for an Operational Readiness Review.

- Completion document: Letter report documenting that the feed volume has been achieved and summarizing the volume reduction results.

c. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank by September 30, 2008.

- Work scope/completion criteria: Operate the 242-A evaporator as a key component of the transfer and treatment system for tank farms to meet or exceed 650,000 gals of feed by volume as measured in the feed tank. 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). This Evaporator campaign and that of 4.b shall be scheduled to ensure maintenance of sufficient proficiency of Tank Farm personnel operating the evaporator and to avoid the need for an Operational Readiness Review.

- Completion document: Letter report documenting that the feed volume has been achieved and summarizing the volume reduction results.

d. A 242-A evaporator campaign that treats at least 650,000 gals as measured in the feed tank by September 30, 2008.

- Work scope/completion criteria: Operate the 242-A evaporator as a key component of the transfer and treatment system for tank farms to meet or exceed 650,000 gals of feed by volume as measured in the feed tank. 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). This Evaporator campaign and that of 4.b shall be scheduled to ensure maintenance of sufficient proficiency of Tank Farm personnel operating the evaporator and to avoid the need for an Operational Readiness Review.
• Completion document: Letter report documenting that the feed volume has been achieved and summarizing the volume reduction results.

e. Blend the high sulfate waste in AZ-102, with high sodium (Na) tank waste supernate in AW-102, AP-107, and AW-106.

• Work scope/completion criteria: The retrievable high sulfate waste within Tank 241-AZ-102 shall be distributed into the high sodium supernatant waste within Tanks 241-AP-107 and 241-AW-106 to achieve a sulfate (SO4) to sodium (Na) ratio less than or equal to 0.048 mole SO4 to mole Na. To provide operational flexibility, alternate high Na supernatant waste tanks may be considered for blending with Tank 241-AZ-102, but approval by the U.S. Department of Energy shall be obtained prior to transfer of the waste.

• Completion document: The completion document shall contain an engineering evaluation of the waste composition in the affected tanks, based upon the volumes transferred and Best Basis Inventory (BBI) compositions. The engineering evaluation shall demonstrate that the resulting waste compositions meet the success criteria. Additionally, the report shall contain, but shall not be limited to the following:
  - Pre and post tank volumetric measurements for Tank 241-AZ-102 and the receiving tanks.
  - BBI compositions prior to waste transfers for each tank.
  - Computed SO4 to Na concentration ratio post waste transfers for each tank.

f. Remove pumpable liquids from Catch Tank 240-S-302 in accordance with the ORP approved liquid mitigation plan.

• Work scope/completion criteria: The free liquid (up to 8,000 gallons) will be removed from 240-S-302. The free liquid will be removed consistent with the limits and capabilities of the selected liquid mitigation method. The liquid will be removed to at least one-inch from the solid surface (based on visual observation using in-tank camera). Additional liquid will be removed if possible considering the liquid mitigation system limits and capabilities.

• Completion document: Letter report documenting pumpable liquids removed from Catch Tank 240-S-302.

5. Complete 242-A Evaporator and Double-Shell Tank Integrity Assessment.

a. Complete the 242-A Evaporator integrity assessment field inspections in accordance with WAC 173-303-640 (2) and considering the recommendation of the 1998 242-A Interim Evaporator Tank System Integrity Assessment Report, HNF-2905, Rev. 0.

• Work scope/completion criteria: Completion of field inspections as identified in the IQRPE inspection plan that is in accordance with WAC 173-303-640 (2) and the recommendation of the 1998 242-A Interim Evaporator Tank System Integrity Assessment Report, HNF-2905, Rev. 0.

• Completion document: Issuance of integrity report documenting the results of field inspections required by the IQRPE plan.

b. Complete the field pressure testing of five (5) double-shell tank transfer lines encasements.

• Work scope/completion criteria: Completion of field pressure testing of five (5) lines double-shell tank transfer line encasements to the criteria specified in the assessment inspection plan and inspection of associated Tank Farm Pits. The lines shall be SL-168, SL-166,
SN-266, SN-268 and SL-162. The pit inspections should include valve pits AN-A, AN-B and pit AW-02A. The specific lines and pits may be modified with ORP concurrence.

- Completion document: Completed work package(s) documenting the completion of the specified encasement pressure tests.


- Work scope/completion criteria: Completion of 3 core samples and analysis. The specific core sampling activities, which do not directly support another incentivized activity, shall be documented in RPP-26781, “Tank Farm Contractor Process Sampling Requirements Through Fiscal Year 2007” or subsequent revision(s). The plan shall identify; the type of sample, the technical need for the sampling activity, the location of the samples, the sampling requirements, the analytical requirements, and the documentation requirements for the sampling activity.

- Completion document: Completed analytical reports documenting the result of the sampling activity.

d. Complete 3 core samples in support to the Double-Shell Tank System chemistry control by September 30, 2008.

- Work scope/completion criteria: Completion of 3 core samples. The specific core sampling activities, which do not directly support another incentivized activity, shall be documented in RPP-26781, “Tank Farm Contractor Process Sampling Requirements Through Fiscal Year 2007” or subsequent revision(s). The plan shall identify; the type of sample, the technical need for the sampling activity, the location of the samples, the sampling requirements, the analytical requirements, and the documentation requirements for the sampling activity.

- Completion document: Completed chain of custody records documenting the delivery to the 222-S laboratory.

e. Complete 5 grab samples and analysis in support to the Double-Shell Tank System chemistry control by September 30, 2007.

- Work scope/completion criteria: Completion of 5 grab samples and analysis. The specific grab sampling activities, which do not directly support another incentivized activity, shall be documented in RPP-26781, “Tank Farm Contractor Process Sampling Requirements Through Fiscal Year 2007” or subsequent revision(s). The plan shall identify; the type of sample, the technical need for the sampling activity, the location of the samples, the sampling requirements, the analytical requirements, and the documentation requirements for the sampling activity.

- Completion document: Completed analytical reports documenting the result of the sampling activity.


- Work scope/completion criteria: Completion of 5 grab samples. The specific grab sampling activities, which do not directly support another incentivized activity, shall be documented in RPP-26781, “Tank Farm Contractor Process Sampling Requirements Through Fiscal Year 2007” or subsequent revision(s). The plan shall identify; the type of sample, the technical need for the sampling activity, the location of the samples, the
sampling requirements, the analytical requirements, and the documentation requirements for the sampling activity.

- Completion document: Completed chain of custody records documenting the delivery to the 222-S laboratory.