

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE 1	OF	PAGES 3
2. AMENDMENT/MODIFICATION NO. A162		3. EFFECTIVE DATE (M/D/Y) See Block 16C	4. REQUISITION/PURCHASE REQ. NO.		
6. ISSUED BY U.S. Department of Energy Office of River Protection P. O. Box 450, MS H6-60 Richland, WA 99352		5. PROJECT NO. (If applicable)			
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.		9B. DATED (SEE ITEM 11)	
CODE		10A. MODIFICATION OF CONTRACT/ ORDER NO. DE-AC27-99RL14047		10B. DATED (SEE ITEM 13) September 30, 1999	
FACILITY CODE		11. THIS ITEM APPLIES TO AMENDMENTS OF SOLICITATIONS			
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE DATE AND HOUR SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and amendment and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) Not Applicable to this Modification					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS SET FORTH IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR 43.103(b).				
<input checked="" type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF: I.68; FAR 52.243-2: Changes-Cost Reimbursement (AUG1967) Alternate II (APR 1984)				
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 3_ 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 Performance Based Incentives (PBIs) 1 and 2. The Contractor was authorized to begin work on this scope on July 16, 2008.					
B. Description of Modification:					
1. Changes to PBI 1 consist of the following. All changes are noted in red font in the attached PBIs.					
i. Authorization to begin work on PBIs 1 & 2 changes was verbally given to the Contractor on July 16, 2008.					
ii. On the first sheet of PBIs 1 & 2, the ORP Assistant Manager is changed from Delmar Noyes to Stacy Charboneau.					
iii. On the same sheet of both PBIs, the ORP POC is Ben Harp.					
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) D.B. Cartmell, Vice President and CFO			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)		15C. DATE SIGNED 8/21/08	16B. UNITED STATES OF AMERICA ORIGINAL SIGNED BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 8/21/08

- iv. **PBI 1: Performance Based Incentive (PBI) Title:** Improve Performance of Tank Farms Personnel, Equipment, and Procedures (infrastructure) for the Long Term ORP Mission. **Change Revision 4 to Revision 5.**
 - v. **Performance Fee available** and assigned to this PBI is **\$9,400,000.**
 - vi. **PBI 1.1** Vadose Zone and Surface Geophysical Exploration. **Performance fee is changed from \$2,600,000 to \$3,000,000.**
 - vii. **Add: PBI 1.1.i** - In support of **interim surface barriers**, complete the following field activities. The Contractor shall earn \$400,000 in incremental fee. The following field activities shall earn \$400,000 in incremental fee upon completion as indicated below:
 - a) **PBI 1.1.i.1** - Drive at least five (5) pushes to a target depth of 110 feet or refusal (whichever is less), take samples as appropriate, and log with gross gamma and neutron moisture probes in TY Farm by September 30, 2008. The Contractor shall earn \$200,000 in incremental fee.
 - b) **PBI 1.1.i.2** - Complete SGE well-to-well and ground penetrating radar (GPR) field work (wells and GPR extent as agreed to with ORP technical representative – per attachment 1) and provide initial visualization(s) in southern portion of S farm (as required to define the SX barrier) and SX farms by September 30, 2008. The Contractor shall earn \$100,000 in incremental fee.
 - c) **PBI 1.1.i.3** - Complete spectral gamma borehole logging of 30 T Farm drywells (wells to be agreed to with ORP technical representative) by September 30, 2008. The Contractor shall earn \$100,000 in incremental fee.
2. **PBI 1 – Completion Criteria:** **Revision changes from Revision 4 to Revision 5.**
3. On Page 3 of 8 of the Completion Criteria, the following text is numbered and added:
- i. In support of interim surface barriers, complete the following field activities:
 - a) Drive at least five (5) pushes to a target depth of 110 feet or refusal (whichever is less), take samples as appropriate, and log with gross gamma and neutron moisture probes in TY Farm.
 - b) Work scope completion criteria: Drive at least five (5) pushes to a target depth of 110 feet or refusal (whichever is less), take samples as appropriate, and log with gross gamma and neutron moisture probes in TY Farm.
 - c) Completion document: Letter transmitting the five (5) gross gamma/neutron field logs in TY Farm.
 - ii. Complete SGE well-to-well and ground penetrating radar (GPR) field work (wells and GPR extent as agreed to with ORP technical representative – per Attachment 1) and provide initial visualization(s) in southern portion of S farm (as required to define the SX barrier) and SX farms.

- a) Work scope/completion criteria: Complete SGE well-to-well and ground penetrating radar (GPR) field work and provide initial visualization(s) in southern portion of S farm (as required to define the SX barrier) and SX farms.
 - b) Completion document: Letter transmitting initial SGE visualization of well-to-well resistivity measurements and initial GPR maps.
- iii. Complete spectral borehole logging of 30 T Farm drywells (wells to be agreed to with ORP technical representative).
- a) Work scope/completion criteria: Complete spectral borehole logging of T Farm drywells required for re-baselining (30 wells).
 - b) Completion document: Letter transmitting verification of calibration and field logs for each well logged.
4. **PBI 2: Performance Based Incentive (PBI)** Title: Double-Shell Tank Upgrades. This is Revision 1 of PBI 2.
5. Performance fee available for **task number three**, "complete the W-314 Master Pump Shutdown Systems Upgrades . . .", **is deleted** in its entirety, including the \$400,000 fee.
6. Performance fee available and assigned to this PBI is reduced by \$400,000; from \$1,350,000 to \$950,000.
7. All other terms and conditions of this contract remain the same.

Note: The attached copies of PBI 1 and PBI 2 and their Performance Criteria are not included in the numbered pages of this modification but are an implemented part of this contract through this modification.

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: \$9,400,000

ORP Assistant Manager:	ORP POC:	CH2M Manager:	CH2M POC:
S. Charboneau	B. Harp		

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 **\$3,000,000.**
 - 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 and complete 25 direct push samples by September 30, 2008. The Contractor shall earn \$475,000 in incremental fee.
 1. Construct one borehole, perform sampling and borehole decommission by September 30, 2008. The Contractor shall earn \$375,000 in incremental fee.

2. Complete the near-surface vadose zone characterization utilizing the hydraulic hammer direct push technology for direct push samples by September 30, 2008. The Contractor shall earn \$100,000 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 a Phase II Master Work Plan that describes the proposed approach for the completion of corrective action to meet final closure requirements in the waste management areas as described in HFFACO, Appendix I, Single-Shell Tank System Waste Retrieval and Closure Process, Section 2.3, WMA Corrective Actions. 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.
 - i. In support of interim surface barriers, complete the following field activities. The Contractor shall earn \$400,000 in incremental fee. The following field activities shall earn \$400,000 in incremental fee upon completion as indicated below:**
 - 1. Drive at least five (5) pushes to a target depth of 110 feet or refusal (whichever is less), take samples as appropriate, and log with gross gamma and neutron moisture probes in TY Farm by September 30, 2008. The Contractor shall earn \$200,000 in incremental fee.**
 - 2. Complete SGE well-to-well and ground penetrating radar (GPR) field work (wells and GPR extent as agreed to with ORP technical representative per Attachment 1) and provide initial visualization(s) in southern portion of S farm (as required to define the SX barrier) and SX farms by September 30, 2008. The Contractor shall earn \$100,000 in incremental fee.**
 - 3. Complete spectral gamma borehole logging of 30 T Farm drywells (wells to be agreed to with ORP technical representative) by September 30, 2008. The Contractor shall earn \$100,000 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.
 2. 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 recover plan by September 30, 2008. The Contractor shall earn \$100,000 in incremental fee.
 3. 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 AP-105, 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.
4. 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.

Date

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

Date

Completion Criteria

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

1. 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 and complete 25 direct push samples.
1. Construct one borehole, perform sampling and borehole decommission by September 30, 2008.
 - 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.
 - Completion document: Letter report documenting completion of construction of one borehole, sample chain of custody records, and borehole decommission.
 2. Complete the near-surface vadose zone characterization utilizing the hydraulic hammer direct push technology for direct push samples by September 30, 2008.
 - Work scope/completion criteria: 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 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 a phase II master work plan that describes the proposed approach for the completion of corrective action to meet final closure requirements in the waste management areas as described in Hanford Federal Facility Agreement and Consent Order, Appendix I, Single-Shell Tank System Waste Retrieval and Closure Process, Section 2.3, WMA Corrective Actions.
- Work scope/completion criteria: The phase II master work plan that describes the proposed approach for the completion of corrective action to meet final closure requirements in the waste management areas as described in TPA Appendix I, Section 2.3. The documents shall meet or exceed the RCRA requirements and HFFACO change number M-45-06-03 by September 30, 2008. The fee is forfeited if the work is not completed on or before September 30, 2008.
 - Completion document: Submit a phase II master work plan to ORP for transmittal to the State of Washington Department of Ecology (Ecology) by September 30, 2008, to meet HFFACO Milestone M-48-48.
- i. In support of interim surface barriers, complete the following field activities:
1. Drive at least five (5) pushes to a target depth of 110 feet or refusal (whichever is less), take samples as appropriate, and log with gross gamma and neutron moisture probes in TY Farm.
 - Work scope/completion criteria: Drive at least five (5) pushes to a target depth of 110 feet or refusal (whichever is less), take samples as appropriate, and log with gross gamma and neutron moisture probes in TY Farm.
 - Completion document: Letter transmitting the five (5) gross gamma/neutron field logs in TY Farm.
 2. Complete SGE well-to-well and ground penetrating radar (GPR) field work (wells and GPR extent as agreed to with ORP technical representative per Attachment 1) and provide initial visualization(s) in southern portion of S farm (as required to define the SX barrier) and SX farms.
 - Work scope/completion criteria: Complete SGE well-to-well and ground penetrating radar (GPR) field work and provide initial visualization(s) in southern portion of S farm (as required to define the SX barrier) and SX farms.
 - Completion document: Letter transmitting initial SGE visualization of well-to-well resistivity measurements and initial GPR maps.
 3. Complete spectral borehole logging of 30 T Farm drywells (wells to be agreed to with ORP technical representative).
 - Work scope/completion criteria: Complete spectral borehole logging of T Farm drywells required for rebaselining (30 wells).
 - Completion document: Letter transmitting verification of calibration and field logs for each well logged.

2. Complete Double-Shell Tank (DST) Integrity Testing.
 - 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.
 - Completion document: Issue three (3) DST Ultrasonic testing and video examination reports to the ORP.
3. 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.

4. 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 AP-105, 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 receiving 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 receiving 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 and transferred to a Hanford double-shell tank (DST). 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 included 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.
- c. Complete 3 core samples and analysis in support to the Double-Shell Tank System chemistry control by September 30, 2007.
- 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.

- f. Complete 5 grab samples in support to the Double-Shell Tank System chemistry control by September 30, 2008.
- 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.

PBI-2

Performance Based Incentive (PBI) Title: Double-Shell Tank Upgrades

Performance Fee available and assigned to this PBI: \$950,000

ORP Assistant Manager:	ORP POC:	CH2M Manager:	CH2M POC:
S. Charboneau	B. Harp		

Desired Endpoint/Outcome

The Double-Shell Tank (DST) storage, transfer, ancillary systems, and facilities will be ready to support the storage, ongoing retrievals, and future Waste Treatment operations. This work completes the DST upgrades initiated, but not completed, prior to the extension of the Tank Farm Management Contract.

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."

Fee Bearing Milestones

1. Complete the W-314 electrical systems upgrades for AN, AP, AW, and SY Tank Farms and turnover to operations by September 30, 2008. The Contractor shall earn \$250,000 incremental fee at completion of the upgrades.
2. Complete the W-314 HVAC systems upgrades for AN and AW Tank Farms and turnover to operations by September 30, 2008. The Contractor shall earn \$700,000 of incremental fee at the completion of the upgrades.

PBI-2

Signature Block

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

Date

Completion Criteria
PBI-2 Double-Shell Tank Upgrades

1. Complete the W-314 electrical system upgrades for AN, AP, AW, SY Tank Farms and turnover to operations.
 - Work scope/completion criteria: Complete Project W-314 electrical system upgrades for AN, AP, AW, SY Tank Farms 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) Preliminary Design Requirements Document for Project W-314 Tank Farm Restoration and Safe Operations, HNF-SD-W314-DRD-001, Section 3.1, Table 3-1. 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. Complete the W-314 HVAC system upgrades for AN and AW Tank Farms and turnover to operations.
 - Work scope/completion criteria: Complete Project W-314 HVAC system upgrades 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) Preliminary Design Requirements Document for Project W-314 Tank Farm Restoration and Safe Operations, HNF-SD-W314-DRD-001, Section 3.1, Table 3-1. 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.