

**SECTION J, ATTACHMENT J.4**

**PERFORMANCE EVALUATION AND  
MEASUREMENT PLAN**

**Fiscal Year 2017**

**Performance Evaluation and Measurement Plan**  
**For**  
**Washington River Protection Solutions LLC**

**Performance Period:**  
**October 1, 2016 through September 30, 2017**

**Issued by:**



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**Kevin W. Smith**  
**Fee Determination Official**  
**DOE/ORP**

9/23/2016  
**Date**

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## A. INTRODUCTION

Contract No. DE-AC27-08RV14800 uses multiple performance based incentives (PBI) and special emphasis area (SEA) award fee components to drive Contractor excellence in performing the operations, construction, and maintenance of the Hanford Tank Farms. The Performance Evaluation and Measurement Plan (PEMP) gives the U.S. Department of Energy (DOE), Office of River Protection (ORP) a tool to identify and reward superior performance.

In the execution of the contract, Washington River Protection Solutions LLC (WRPS) is expected to provide comprehensive, effective management as conscientious stewards of all Tank Farm facilities and activities through:

- Demonstrating safety leadership and risk-informed, conservative decision-making.
- Anticipating project challenges and providing timely resolution.
- Open communication with the workforce fostering a questioning attitude and an environment free from retribution.
- Aggressive self-discovery of project issues to ORP through critical self-analysis, performance monitoring, and comprehensive extent of condition reviews.

This PEMP also defines the ORP approach in evaluating, documenting, and providing performance fee to WRPS, in the execution of requirements defined in Contract DE-AC27-08RV14800. This PEMP is for the second year of the contract option period of performance from October 1, 2016, through September 30, 2017.

### 1. PEMP Objectives

- a. Provide ORP with a mechanism to achieve its highest priority objectives.
- b. Provide incentive to WRPS to accomplish ORP's management and program objectives through the establishment of critical performance objectives and measures.
- c. Reward WRPS with fee commensurate with the achievement of the specific ORP performance requirements.
- d. Create an administratively efficient process to assess WRPS performance.
- e. Provide a fair and reasonable basis for determining the amount of fee earned.
- f. Create a process that ensures WRPS work efforts are executed in a manner that provides high value and high quality deliverables to ORP.

### 2. Definitions

- a. Award Fee. The subjective fee component of Performance Fee.

- b. Expected Performance Level. Meets agreed upon requirements and performance objectives.
- c. Fee Determination Official (FDO). The final authority in determination of fee awarded to WRPS.
- d. Office of River Protection. ORP is a Department of Energy Environmental Management field office.
- e. Performance Evaluation Board (PEB). For the purpose of this PEMP, designated ORP senior managers and Contracting Officer are chartered with recommending WRPS earned fee to the FDO.
- f. Performance Evaluation and Measurement Plan (PEMP). A plan that defines an approach in evaluating, documenting, and providing performance fee against specified PBIs and Award Fee Incentives.
- g. Performance Evaluation Period. The period for which the PEB evaluates contractor's overall performance: October 1 through September 30.
- h. Performance Fee. That portion of the total available fee which is tied exclusively to the contractor's performance of the contract. The performance fee amount will consist of an incentive fee component for objective performance requirements and an award fee component for subjective performance requirements, or both.
- i. Performance Based Incentive (PBI). A performance incentive represents a reward or consequences that may be employed to motivate a contractor to achieve baseline or higher levels of performance of a requirement. In most instances, the incentive represents an amount of fee tied to the accomplishment of a performance objective.
- j. Performance Measure. The quantitative method for characterizing performance.
- k. Performance Monitor (PM). Designated by the PEB as responsible individuals monitoring and evaluating the contractor's performance.
- l. Performance Objective. A statement of desired results from an organization or activity.
- m. Provisional Payment of Fee. Any payments paid on a provisional basis may be reclaimed.
- n. Special Emphasis Area (SEA). An area that is extremely important to DOE and ORP and the fee associated with each area represents an incentive based on a graded approach and is a subjective determination by the PM for calculation of possible earned fee.

- o. Straight-line Method. This method provides a 100 percent incremental fee for completion of the performance measure prior to the expiration of the performance evaluation period.
- p. Terminal Method. This method provides 100 percent incremental fee for completion of the performance measure prior to a specific date and/or milestone; however, the Contractor will forfeit 100 percent of the fee allocated to the performance measure for completion of the performance measure after the passing of the specific date and/or milestone as defined within the performance measure.

### 3. **Fee Concept**

Performance-based management contracting principles emphasize results-oriented work statements, and performance objectives and measures to incentivize contractors to achieve excellent performance. ORP implements performance-based management contracting principles through processes associated with *Strategic Planning, Budget Formulation, Budget Execution, and Performance Evaluation*.

WRPS is responsible for the furnishing of safe, compliant, cost-effective and energy-efficient services to further the ORP mission to store, retrieve and treat Hanford tank waste, store and dispose of treated waste, and to close the Tank Farm waste management areas to protect the Columbia River. Because of the nature of this work, ORP uses performance fee to incentivize and reward WRPS for performance. Performance fee consists of two components: an incentive fee component which provides management focus and emphasis on ORP's few critical program objectives and an award fee component which provides management focus on all other aspects of WRPS's performance of the overall Tank Farm operations, construction, and maintenance programs.

#### a. **PBI**

The PBI performance measures and fee measures are delineated in Attachment 1 of this PEMP. Emphasis will be placed on development of objective incentives based on definition of the desired outcome (the "what") and expect the contractor to compliantly and safely determine "how" the work is performed to achieve the desired outcome within the established funding constraints. These incentives are identified as PBIs and typically carry more performance risk and higher fee earning opportunities.

#### b. **Award Fee SEA Incentives**

The SEA performance objectives and measures are delineated in Attachment 1 of the PEMP. In certain instances, the contractor must provide support and/or deliverables that are required to accomplish the project objectives but are not objectively measurable in all cases. These efforts are therefore measured subjectively under incentives identified as SEAs and typically carry reduced performance risk and moderate fee earning opportunities and the FDO may use

discretionary factors in determining fee. Consideration will also be given to complete and accurate technical information/products delivered in mutually agreed time frames that meet all applicable codes, standards, rules, regulations and orders.

## **B. REFERENCES**

DOE ORP contract with WRPS; Contract DE-AC27-08RV14800.

## **C. ORGANIZATIONAL STRUCTURE FOR PERFORMANCE FEE ADMINISTRATION**

The PEMP is established unilaterally by ORP to provide for successful completion of ORP's significant management and program objectives. The effectiveness of this PEMP also requires the establishment of a close working relationship between ORP and WRPS because all entities are responsible for successful implementation of the plan and successful completion of ORP's significant management and program objectives. The roles and responsibilities of the key personnel are as follows:

### **1. DOE-Headquarters (HQ)**

#### Deputy Assistant Secretary for Acquisition and Project Management

- Serves as Head of Contracting Activity for the Office of Environmental Management.
- Reviews and comments on the PEMP and Recommended Fee Determination.
- Coordinates with the Deputy Secretary of Energy (S-2) and the Office of Procurement Assistance and Management as necessary.

### **2. ORP**

#### **a. Manager, ORP**

- Approves annual PEMP.
- Approves changes to the PEMP during the execution period.
- Serves as FDO.
- Formally charters the PEB to ensure senior management involvement and accountability.
- Issues annual Award Fee Determination.
- Approves PBI Completion Determination.

#### **b. Assistant Manager, Tank Farms Project**

- Serves as Chair of the PEB.

#### **c. Director, Contracts and Property Management**

- Forwards draft PEMP to the Environmental Management Head Contracting Authority for review and comment.
- Forwards draft Award Fee Determination for review and comment.

- Works with PEB to address any HQ comments concerning PEMP or Award Fee Determination, adjudicated by the FDO.
- Ensures a unilateral or bilateral plan is issued prior to the start of the performance period.
- Reviews draft evaluation report.
- Coordinates with FDO during PEMP evaluation and fee recommendation.

d. ORP PEB

- Accountable for final selection and recommendation of contract-specific performance-based and award fee incentives.
- Assigns responsibilities to PMs to monitor and evaluate completion of performance against objectives and measures for PBIs and SEAs.
- Provides input, reviews, and concurs on the PEMP.
- Accountable for addressing any external stakeholder comments concerning PEMP or Award Fee Determination through the FDO.
- Reviews WRPS performance at the end of the evaluation period and upon completion of key milestones.
- Evaluates WRPS performance and recommends earned fee to the FDO.

e. PEB Chair Person

- Issues call letters for input in the development of the PEMP.
- Submits draft PEMP to PMs and WRPS for review and comment.
- Consolidates, coordinates, and incorporates comments to the PEMP.
- Obtains appropriate concurrence and approvals of the PEMP.
- Issues call letter to PMs for input to WRPS performance evaluation report.
- Coordinates evaluations of WRPS's performance with the PEB.
- Consolidates input from ORP PMs.
- Coordinates training for participants in the performance fee process.
- Coordinates changes with PMs.
- Provide fee recommendation to the FDO.

f. PEB Members/PMs

- Attend all meetings unless formally excused by the Chair.
- Actively participate in meetings.
- Assure all program activities are represented.
- Accountable for finalizing performance objectives/measures.
- Monitor and evaluate completion of performance objectives.
- Provides input, review, and concur on performance objectives.
- Provides independent assessment of WRPS performance and recommend earned fee to the FDO.
- Validate and document completion of PBI and SEA performance objectives and measures.

- Elevate recommendations, issues or concerns to the Chair.
- Reviews and considers WRPS self-assessments in recommending fee.

g. Contracting Officer

- Transmits the PEMP to the contractor and incorporates the PEMP into the contract either bilaterally or unilaterally.
- Provides input, reviews, and concurs on the PEMP PBI and SEA objectives and measures to achieve ORP's management and program requirements.
- Determines the completion and achievement of the performance objectives and measures for the FDO.

3. **WRPS**

General Manager

- Collaborates with ORP management to establish a working relationship that enables production of high value deliverables.
- Responsible for the achievement of performance objectives and measures.
- Provides critical self-assessments of performance against PBI and SEA performance objectives and measures to the ORP Contracting Officer.

**D. METHOD FOR DETERMINING PERFORMANCE FEE**

**1. Communication with WRPS during the Evaluation Period**

One important consideration for evaluation will be discussions between the PM and their WRPS counterpart. It is a management expectation that PMs meet with their WRPS counterpart at least monthly to review, discuss, and provide interface on WRPS' performance against the performance-based and award fee incentives and overall contract performance.

Regular communication with WRPS at the PM level will contribute to the success of the fee process. PM should discuss performance which may not currently meet performance objectives and measures, and thereby keep WRPS informed as to achievements and deficiencies that may appear in the final evaluation for the period.

ORP will use this separate color-coded table for informal monthly performance evaluations (see Attachment 5). The final evaluation will reflect the adjectival rating scale in Attachment 1.

**2. WRPS Self-Assessment**

WRPS shall provide the ORP Contracting Officer with a critical self-assessment within ten (10) working days after the end of an award fee evaluation period. WRPS must also provide an electronic copy of its critical self-assessment of performance to ORP Contracting Officer for distribution to ORP PMs.

WRPS shall critically assess progress in meeting deliverables within cost, schedule and scope, including meeting the specified acceptance criteria. WRPS shall identify issues potentially affecting the completion of individual PBIs and SEAs and the overall success of the program, and actions taken or recommended to resolve those issues. WRPS's critical self-assessment shall propose and justify the amount of performance based incentive and award fee earned, and include a discussion of fee reductions warranted by any failure to meet performance expectation. In the event the contractor self-discloses a situation that falls within the support of a special emphasis area, and appropriately self-corrects the situation in a timely manner, fee reduction may be waived by the FDO.

**3. ORP Assessment**

ORP PMs shall prepare and submit to ORP PEB Chair Person, an independent assessment of WRPS's performance within 20 calendar days upon receipt of the WRPS end of the year self-assessment. The ORP PM shall consider WRPS's input with respect to completing the SEA performance criteria and with respect to the quality. Where significant disagreement exists between WRPS's self-assessment and ORP's assessment, the responsible ORP PM shall raise such disagreements to the PEB for resolution. WRPS may be requested to attend a Board meeting to assure their view is understood.

ORP PMs shall also consider the additional input received during monthly operating reviews. Such reviews will enable program-wide understanding of progress, an integrated assessment of impacts, and the identification of corrective actions. Assessments shall also document the rationale for any reduction in the amount of award fee earned.

ORP PEB Chair Person will consolidate ORP PM Evaluation Reports and submit a written evaluation report to the PEB members (see attachment 4 for the list of PEB members) with recommendations for final approval from the FDO.

**4. Performance Evaluation Process**

<b>Performance Evaluation Process</b>		
<b>Activity</b>	<b>Duration</b>	<b>Evaluation Period</b>
Award fee evaluation period	365 days	October 1, 2016 to September 30, 2017
WRPS Monthly list of completed PBIs and supporting documentation are provided to the ORP Contracting Officer	10 days	10 working days after each calendar month
WRPS third quarter and end of year self-assessment of award fee performance objectives and measures are provided to the ORP Contracting Officer	10 days	10 working days after each the end of the quarter
ORP PMs will prepare and submit Independent Assessment of WRPS performance to ORP PEB Chair	20 days	20 working days after each calendar month for PBIs and 20 days after third and fourth quarters for award fee assessment
ORP consolidate performance monitor evaluation reports and submit to ORP PEB members for review	30 days	~ 30 days after receipt of monthly PBI completion letter and third quarter or end of year award fee self-assessment
PEB will review, validate and prepare evaluation report with recommendation to the FDO	60 days	~ 60 days after receipt of monthly PBI completion letter and end of year award fee self-assessment
FDO determines amount of PBI fee earned (monthly) and award fee earned (annually)	70 days	70 days after receipt of monthly PBI completion letters and 70 days after receipt of end of year award fee self-assessment

- a. Within ten (10) working days after the end of a calendar month, WRPS shall provide the ORP Contracting Officer with a list of the PBIs completed in that month and supporting documentation demonstrating the performance based incentives have been earned. Within ten (10) days after the end of the third quarter, WRPS shall provide the Contracting Officer with a self-assessment of their performance towards achievement of the award fee performance objectives and measures during the first three quarters. The contractor will provide an electronic copy of its monthly PBI completion report and third quarter award fee self-assessment report to the ORP Contracting Officer for distribution to ORP PMs.
- b. Within twenty (20) working days upon receipt of the monthly WRPS PBI completion letter, and twenty (20) working days upon receipt of the third quarter award fee self-assessment report ORP PMs will prepare and submit an independent assessment of WRPS's performance, with respect to quality and schedule, against the PBI completion criteria and/or award fee performance objectives and measures to the ORP PEB Chair Person for consolidation. The ORP PM shall consider WRPS's input with respect to payments of fee. Where significant disagreement

exists between WRPS's self-assessment and ORP's assessment, the responsible PM shall raise such disagreements to the ORP PEB for resolution.

- c. The ORP assessment must be submitted on the PM Evaluation Report form, Attachment 2 of the Plan, and will only be accepted by the ORP PEB Chair Person upon the approval of the ORP PM.
- d. Within approximately thirty (30) calendar days upon receipt of the monthly WRPS PBI completion letter, and third quarter award fee evaluation period, the ORP PEB Chair Person will consolidate PM Evaluation Reports and submit to the PEB members for review.
- e. Within approximately sixty (60) calendar days upon receipt of the monthly WRPS PBI completion letter, and end of year award fee evaluation period, the PEB will review, validate, and prepare an evaluation report and submit a fee recommendation to the FDO.
- f. Within seventy (70) calendar days upon receipt of the monthly WRPS PBI completion letter, and end of year award fee self-assessments, the FDO will make a determination of the fee earned.

#### **5. Evaluation and Discussion Documentation**

Where meetings or discussions are held by the PM (with WRPS, HQ, or others) that significantly impact award fee evaluations, it is necessary that appropriate documentation be created. This documentation can be in the form of signed and dated notes, minutes, or correspondence. Copies of the PM documentation should be maintained by the PM in support of the PM Evaluation Report.

Rationale for fee payments will be documented by the PEB for the FDO. The final PEB Fee Recommendation and FDO Fee Determination reports along with supporting rationale will be maintained by the ORP Contracts and Property Management organization in the official "contract file."

#### **E. PEB INVOLVEMENT IN FINAL EVALUATIONS**

The PEB is responsible for reviewing the PM Evaluation Reports and developing a Fee Recommendation Report to the FDO. The PEB Chair will provide updates and feedback to the FDO prior to receiving the PEB's final signed fee recommendation report.

#### **F. FDO RESPONSIBILITIES IN FINAL EVALUATIONS**

Based on the FDO's personal knowledge, the information contained in WRPS's self-assessment, the PEB Fee Recommendation Report, and/or other information relating to WRPS's performance of the contract requirements, the FDO develops a determination on the evaluation and award fee. The FDO informs the Deputy Assistant Secretary for Acquisition and Project Management of their Fee Determination. Following the review with the Deputy

Assistant Secretary for Acquisition and Project Management, the FDO issues a Fee Determination letter of award fee earned to WRPS.

**G. METHOD FOR CHANGING PLAN COVERAGE**

Proposed changes to the PEMP may be initiated by ORP. Proposed changes to the PEMP may be initiated on the official PEMP Change Form (Attachment 4). The respective PM will review and concur on proposed changes prior to any changes being made to the PEMP. The FDO will either approve or disapprove any proposed changes to the PEMP.

**Attachment 1**

**PERFORMANCE BASED INCENTIVES**

<b>PERFORMANCE BASED INCENTIVES</b>	<b>VALUE</b>	<b>PERFORMANCE MONITOR</b>
PBI-25.0 CLIN 2: C Farm Retrievals	\$3,900,000	Tank Farms
PBI-26.0 CLIN 2: A/AX Retrievals	\$8,410,000	Tank Farms
PBI-27.0 CLIN 2: Manage DST Space (includes DST Tank Integrity)	\$4,600,000	Tank Farms
PBI-28.0 CLIN 1: Improve Infrastructure (Vapors Inefficiencies are captured within individual projects)	\$4,100,000	Tank Farms
PBI-29.0 CLIN 3: Integrate Tank Farms and WTP	\$1,750,000	Tank Farms
PBI-30.0 CLIN 1: AY-102 Retrieval	\$1,500,000	Tank Farms
PBI-31.0 CLIN 2: Tank Farm Closure Activities	\$1,450,000	Tank Farms
PBI-32.0 CLIN 3: Chief Technology Office	\$1,750,000	Tank Farms
PBI-33.0 CLIN 5: Low-Activity Waste Pretreatment System	\$3,825,000	Tank Farms
<b>Total PBI Fee Available</b>	<b>\$31,285,000</b>	

**AWARD FEE SPECIAL EMPHASIS AREAS**

<b>SPECIAL EMPHASIS AREAS</b>	<b>VALUE</b>	<b>PERFORMANCE MONITOR</b>
SEA 1: Management of Single-Shell Tank (SST) and Double-Shell Tank (DST) System	\$835,000	Tank Farms
SEA 2: Performance of Tank Farm Project Operations – Conduct of Operations	\$835,000	Tank Operations
SEA 3: Cost and Management Performance	\$6,675,000	Tank Farms
SEA 4: Quality Assurance Program	\$835,000	Quality Assurance
SEA 5: Nuclear Safety	\$835,000	Nuclear Safety
SEA 6: Environmental Regulatory Management	\$835,000	Environmental
SEA 7: Safety Program Implementation	\$835,000	Safety and Health
SEA 8: Support for DFLAW and WTP Commissioning	\$835,000	Tank Farms
SEA 9: Contractor Assurance System (CAS)	\$835,000	Tank Farms
<b>Total SEA Fee Available</b>	<b>\$13,355,000</b>	<b>30%</b>

The PBIs are for specific scopes of work to be performed during the annual evaluation period. Each PBI will be evaluated on a pass/fail basis.

The available fee for both the PBIs and the SEAs combined is to be determined dependent on project funding and is currently estimated at \$44,640,000. Unearned fee is not available to be earned in any subsequent evaluation period.

**PBI-25.0 CLIN 2 C Farm Retrievals**

**Performance Fee value is established at \$3,900,000 of Fiscal Year 2017 fee pool.**

**Fee Structure:** Straight-Line and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Straight-Line	\$1,050,000	September 30, 2017
2	Terminal	\$1,000,000	September 30, 2017
3	Terminal	\$1,500,000	September 30, 2017
4	Terminal	\$250,000	September 30, 2017
5	Terminal	\$100,000	September 30, 2017
<b>Total</b>		<b>\$3,900,000</b>	

**Desired Endpoint/Outcome:**

Hose-in-hose transfer lines (HIHTL) that are used in the tank farms for the temporary movement of waste for retrieval are required to be removed from the Hanford Tank Farms once retrieval activities in a Farm are complete in accordance with the schedule in the temporary HIHTL Management Plan. Prepare and retrieve the residual waste in C-105 using an approved third Technology retrieval method will assist in completion of tank waste retrieval activities to meet or exceed performance requirements of the Consent Decree – Appendix B and C. In addition, completion of this proposed scope of work will benefit the sites by developing a common, demonstrated methodology for the transition from active storage to closure of the tank.

**Fee Bearing Milestones:**

1. Complete removal of eighteen (18) interim stabilization HIHTLs by September 30, 2017. The Contractor shall earn \$58,333 of fee for each HIHTL removal for a total available fee of \$1,050,000.

Work scope/completion criteria for HIHTL removal: The line has been removed from the field and packaged for shipment to the treatment vendor. The line removal and packaging will be documented by Operations acceptance of the work package. At the completion of the HIHTL removal, the field work supervisor will verify all housekeeping activities related to the work having been completed. Completion of housekeeping will be signed off in the work record of the work package.

Completion document: Letter transmitting the performance expectation completion notice and work package coversheet documenting completion and acceptance by Operations.

2. Complete construction and installation of a third technology retrieval system for Tank 241-C-105 by September 30, 2017. The Contractor shall earn \$1,000,000 of incremental fee.

Work Scope/Completion Criteria: Construction and system installation shall be completed in 241-C-105.

Completion document: Letter transmitting the performance expectation completion notice and copy of Construction Completion Document(s) (CCD) approved through Sections 1a and 1b.

3. Complete retrieval of 241-C-105 to the limits of three technologies with a residual waste volume of less than 360 cubic feet, or complete retrieval to the limits of three approved technologies by September 30, 2017. The Contractor shall earn \$1,500,000 of fee upon completion of the approved technologies.

Work scope/completion criteria: Complete waste retrieval operations to the limits three technologies with a residual waste volume of less than 360 cubic feet, or complete retrieval to the limits of three approved technologies as defined by the applicable Tank Waste Retrieval Work Plan.

Completion document: Letter transmitting performance expectation completion notice and a released copy of the Contractor's Retrieval Completion Report (RCR) documenting the field results of retrieval. (Note: The Contractor's RCR is an engineering report summarizing the results of retrieval operations and is separate and distinct from the Retrieval Completion Certification document required by the Consent Decree.)

4. In partial completion of Tri-Party Agreement (TPA) Milestone M-45-86, provide retrieval data report for Tank 241-C-111 in C Farm that has completed retrieval under the Consent Decree. The Contractor shall earn a total of \$250,000 of fee upon completion of the report.

Work scope/completion criteria: The retrieval data report shall include the following elements:

- Residual tank waste volume measurement, including associated calculations
- The results of residual tank waste characterization
- Retrieval technology performance documentation
- The updated post-retrieval risk assessment
- Opportunities and actions being taken to refine or develop tank waste retrieval technologies based on lessons learned
- Leak detection monitoring and performance results
- Leak detection monitoring and performance results.

The tank residual characterization and residual volume estimate shall be based on the version of RPP-23403 (*Single-Shell Tank Component Closure Data Quality Objectives*) in effect at the time of retrieval completion certification for the tank in question, modified by any specific changes agreed to in the applicable Tank Sampling and Analysis Plans (TSAPs). The post-retrieval risk assessment shall be based on the risk model used in DOE/ORP-2005-01, *Initial Single-Shell Tank System Performance Assessment for the Hanford Site*. A draft of the retrieval data report shall be provided to ORP for review, and all written comments submitted

to the contractor on the draft, within 30 calendar days of providing the draft to ORP, will be addressed in the final retrieval data report. Note: Development of a retrieval data report does not require Washington State Department of Ecology (Ecology) approval of completion of retrieval.

Completion document: A letter transmitting the performance expectation completion notice and a formally released retrieval data report addressing the elements described above.

5. Complete isolation of the C Farm POR008 Exhauster in accordance with a C Farm Equipment Stabilization Plan by September 30, 2017. The Contractor shall earn \$100,000 of fee for POR008 isolation.

Work scope/completion criteria: The POR008 exhauster has been isolated from service in accordance with a C Farm Equipment Stabilization Plan that includes, as a minimum, capping the stack and isolation of the upstream filter system from the stack. Isolation will be documented by Operations acceptance of the work package(s).

Completion document: A letter transmitting the performance expectation completion notice and a copy of the C Farm Equipment Stabilization Plan for the POR008 Exhauster and work package data documenting POR008 exhauster isolation, including capping of the stack and isolation of the upstream filter system from the stack, completion and acceptance by Operations.

**PBI-26.0 CLIN 2 Begin A/AX Retrieval**

**Performance Fee value is established at \$8,410,000 of Fiscal Year 2017 fee pool.**

**Fee Structure:** Straight-Line and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Straight-Line	\$800,000	September 30, 2017
2	Straight-Line	\$200,000	September 30, 2017
3	Terminal	\$1,000,000	September 30, 2017
4	Terminal	\$400,000	September 30, 2017
5	Terminal	\$500,000	September 30, 2017
6	Terminal	\$250,000	September 30, 2017
7	Straight-Line	\$2,400,000	September 30, 2017
8	Straight-Line	\$750,000	September 30, 2017
9	Straight-Line	\$450,000	September 30, 2017
10	Terminal	\$1,500,000	September 30, 2017
11	Terminal	\$160,000	September 30, 2017
<b>Total</b>		<b>\$8,410,000</b>	

**Desired Endpoint/Outcome:**

The work outlined in this performance based incentive is required to prepare and retrieve tanks in A/AX farms for waste retrieval. Completion of tank waste Retrieval activities to meet or exceed performance requirements in the Consent Decree – Appendix B and C.

**Fee Bearing Milestones:**

1. Complete equipment procurement of Extended Reach Sluicing Systems (ERSS) for Tanks AX-101 and AX-103 by September 30, 2017. Three sluicers will be procured for each tank. The Contractor shall earn \$400,000 of incremental for procurement of each set of ERSSs for each tank for a total of \$800,000 in total fee.

Work scope/completion criteria: Each set of sluicers (three sluicers for each tank) shall be received and green tagged.

Completion document: Letter transmitting the performance expectation completion notice and a copy of the green tags for each set of sluicers.

2. Complete equipment procurement and fabrication of retrieval waste distribution components for Tanks AX-101, AX-102, AX-103, and AX-104 by September 30, 2017. There are four (4) primary components to the system. The Contractor shall earn \$50,000 of incremental fee for procurement of diversion boxes (one for AX-102/AX-104, and one for AX-101/ AX-103), splitter box for AX Retrievals, and HIHTL for the diversion box to AX-102 and AX-104 tank interfaces for a total available fee of \$200,000.

Work scope/completion criteria: The two double-shell tank (DST) Diversion Boxes (AX-102/AX-104 and AX-101/AX-103) and Splitter Box for AX Retrievals and HIHTL for the diversion box to AX-102 and AX-104 tank interfaces shall be received and green tagged.

Completion document: Letter transmitting the performance expectation completion notice and copy of the green tags for each component.

3. Complete installation of the A/AX Retrieval Air and Service Water Building (A-285) by September 30, 2017. The Contractor shall earn \$1,000,000 for completion of installation of facility systems.

Work scope/completion criteria: Complete installation inclusive of building internals, such as building electrical, HVAC, facility distribution systems (i.e., air, water, and caustic), and associated facility piping.

Completion document: Letter transmitting the performance expectation completion notice and copy of work package(s) signature page(s) signed off as field work complete by the Field Work Supervisor.

4. Procure A-Farm ventilation system by September 30, 2017. The Contractor shall earn \$400,000 for completion of procurement.

Work scope/completion criteria: Procure A-Farm ventilation system.

Completion document: Letter transmitting the performance expectation completion notice and copy of the green tags for each component.

5. Complete down selection for A-104 and A-105 Tank retrieval technologies by September 30, 2017. The Contractor shall earn \$500,000 for issuance of a down selection report.

Work scope/completion criteria: The work scope includes establishing DOE and Ecology requirements and limitations for retrieving A-104 and A-105, and review and “down selecting” a suitable retrieval technology.

Completion document: Letter transmitting the performance expectation completion notice and Contractor-approved and issued down selection report.

6. Complete A Farm Equipment Removal Design by September 30, 2017. The Contractor shall earn \$250,000 in fee.

Work scope/completion criteria: Complete equipment removal design for A Farm Tanks.

Completion document: Letter transmitting the performance expectation completion notice and a matrix that identifies all design media issued to support equipment removal activities in A Farm.

7. Complete fifteen long-length equipment (LLE) removal actions at AX-102 and AX-104 by September 30, 2017. The Contractor shall earn \$160,000 in incremental fee for each of 15 long length contaminated equipment removals for a total available fee of \$2,400,000.

Work scope/completion criteria: The Contractor shall remove equipment from AX-102 and AX-104 farm tanks to prepare the two tanks for installation of the waste retrieval systems. The equipment to be removed from each AX tank is identified in RPP-RPT-57187, *241-AX Farm Riser Utilization Evaluation*. The work scope will be completed when equipment has been removed from two of the four tanks in accordance with RPP-RPT-57187.

Completion document: Letter transmitting the performance expectation completion notice(s) and a copy of the work package signed off as approved by the Field Work Supervisor for each LLE.

8. Complete the following AX-102 and AX-104 equipment removal actions by September 30, 2017. The Contractor shall earn \$187,500 in incremental fee for each pit cleanout (excluding long length contaminated equipment removals) for a total available fee of \$750,000.

Work scope/completion criteria: AX-102 and AX-104 equipment removal actions includes complete removal of cover block, and clean out four (4) pits (excluding long length contaminated equipment removals).

Completion document: Letter transmitting the performance expectation completion notice and for each pit cleanout a copy of the work package signed off as complete by the Field Work Supervisor.

9. Complete the demolition of Buildings 801A, 801B, and 801C by September 30, 2017. The Contractor shall earn \$150,000 in incremental fee for each building demolition for a total available fee of \$450,000.

Work scope/completion criteria: Removal of AX-Farm Buildings 801A, 801B, and 801C to facilitate new retrieval equipment system installation. Completion criteria includes complete removal of Buildings 801B, 801C, and 801A above grade (excludes 801A below grade).

Completion document: Letter transmitting the performance expectation completion notice and for building removal a copy of the work package signed off as complete by the Field Work Supervisor.

10. Complete fabrication of the A/AX Water Service Skid (POR-466) by September 30, 2017. The Contractor shall earn \$1,500,000 of incremental fee upon completion of fabrication and receipt for field installation.

Work scope/completion criteria: Complete procurement, fabrication and installation of components into their environmentally controlled container (building) to comprise the A/AX Water Service Skid POR-466.

Completion document: Letter transmitting the performance expectation completion notice and green tag(s) receipt and acceptance of (POR-466) as a complete unit.

11. Complete AZ Drop Leg, AX Splitter Box, and AZ to AX Splitter Box HIHTL field installation by September 30, 2017 (excluding Service Connections, Construction Acceptance Testing [CAT] and Operational Acceptance Testing [OATs]). The Contractor shall earn \$160,000 of incremental fee upon completion of field installation.

Work scope/completion criteria: Complete field installation of AZ Drop Leg, AX Splitter Box, and AZ to AX Splitter Box HIHTL installation (excluding CAT and OATs). These systems are needed to support AX-2 and AX-4 retrieval.

Completion document: Letter transmitting the performance expectation completion notice for each installation and a copy of the work package signed off as complete by the Field Work Supervisor.

**PBI-27.0 CLIN 1 Manage DST Space (including DST Tank Integrity)**

**Performance Fee value is established at \$4,600,000 of FY 2017 fee pool.**

**Fee Structure:** Straight-Line Method and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
<b>1</b>	Straight-Line	\$1,500,000	September 30, 2017
<b>2</b>	Straight-Line	\$600,000	September 30, 2017
<b>3</b>	Straight-Line	\$500,000	September 30, 2017
<b>4</b>	Straight-Line	\$1,000,000	September 30, 2017
<b>5</b>	Terminal	\$300,000	March 31, 2017
<b>6</b>	Straight-Line	\$700,000	September 30, 2017
<b>Total</b>		<b>\$4,600,000</b>	

**Desired Endpoint/Outcome:**

Prior to operations of the Waste Treatment and Immobilization Plant (WTP), conservation of DST space is critical to allow continued single-shell tank (SST) retrievals in accordance with negotiated regulatory milestones. The 242-A Evaporator is the primary tool to reduce waste volumes stored in the DST system, as well as DST to DST transfers, appropriate sampling, encasement pressure tests, SST and DST visual inspections, SST intrusion mitigation, Effluent Treatment Facility (ETF) Liquid Effluent Retention Facility (LERF) inventory reduction, etc.

**Fee Bearing Milestones:**

1. Operate the 242-A Evaporator to process cumulative 480,000 waste volume reduction volume by September 30, 2017. The Contractor shall earn \$500,000 upon completion of each 160,000 gallons of waste volume reduction for total available fee of \$1,500,000.

Work scope/completion criteria: Operate the 242-A Evaporator as a key component of the transfer and treatment system for Tank Farms. The evaporator will process the waste to the parameters determined by Process Engineering. The after-flush waste volume reduction (WVR) will be determined by the Process Control Plan (e.g., specific gravity goal and limits on the amount of waste removed from AW-102) with a cumulative 480,000 gallons waste volume reduction by September 30, 2017, of free DST volume achieved. Any WVR achieved above the 480,000 gallons in FY 2017 will carry over and count towards FY 2018 WVR and associated 242-A processing milestones.

Completion document: Letter transmitting the performance expectation completion notice and letter report and evidence of completion documenting that the waste volume reduction volume has been achieved and summarizing the volume reduction results.

2. Complete eight (8) grab samples in support of the Tank Operations Contract (TOC) mission by September 30, 2017. The Contractor shall earn \$75,000 of incremental fee upon completion of the each grab sample (total of \$600,000 of incremental fee is available to be earned).

Work scope/completion criteria: Completion of 8 grab samples as described in the applicable TSAPs. The plan shall identify; the type of sample, the technical need for the sampling activity, the location of the samples, and the sampling requirements. Sampling activities for double-shell tanks may include up to two activities per TSAP, provided they are discrete sampling activities and are described as such in a TSAP.

Completion document: Letter transmitting performance expectation completion notice, copy of the chain of custody, and copy of the Sampling Data sheet. These items document completion of the grab sample and transfer of ownership to the laboratory.

3. Complete rotary mode readiness for core sample platform operations and one (1) core sample in support of the TOC mission by September 30, 2017. The Contractor shall earn \$250,000 of fee for completion of the readiness for core sample operations and a copy of the Sampling Data sheet for total available fee of \$500,000.

Work scope/completion criteria: Completion of one readiness checklist in accordance with procedural readiness requirements and one core sample as described in the applicable TSAP. The plan shall identify; the type of sample, the technical need for the sampling activity, the location of the sample, and the sampling requirements.

Completion document: Letter transmitting performance expectation completion notice and operations signed readiness documentation for the core sample platform operations and copy of the chain of custody documenting completion of core sample and delivery of the sample to the 222-S Laboratory for completion of the core sample.

4. Perform eight (8) DST enhanced annulus visual inspections in specified tank farms by September 30, 2017. The Contractor shall earn \$125,000 of fee for completing each DST enhanced annulus visual inspections for total available fee of \$1,000,000.

Work scope/completion criteria: Perform eight (8) DST enhanced annulus visual inspections on tanks.

An enhanced annulus visual inspection consists of  $\geq 95$  percent inspection of the annulus floor. In addition, the visual inspection will include the primary tank dome, upper and lower haunches, sidewall, and insulating refractory visible from the annulus inspection risers.

Completion document: Letter transmitting performance expectation completion notice and applicable DST Annulus visual inspection report to the ORP.

5. Reduce LERF inventory by 2,000,000 gallons by March 31, 2017. The Contractor shall earn \$150,000 of incremental fee upon completion of each 1,000,000 gallons of LERF inventory with an initial reduction for total available fee pool of \$300,000 for 2,000,000 cumulative gallons.

Work scope/completion criteria: Operate the ETF as a key component of the Tank Farms. The ETF will process the waste to the parameters determined by Process Engineering. The volume of waste processed shall be based on LERF inventory transferred to the Surge Tank as determined by the Process Control Plan. Any processing achieved above the 2,000,000 gallons in FY 2017 will carry over and count towards FY 2017 processing and associated ETF processing milestones.

Completion document: Letter transmitting the performance expectation completion notice and letter report and evidence of completion documenting that the LERF inventory reduction has been achieved and summarizing the processing results.

6. Reduce LERF inventory by an additional 4,000,000 gallons September 30, 2017. The Contractor shall earn \$175,000 of incremental fee upon completion of each 1,000,000 gallons of LERF inventory additional reduction for total available fee pool of \$700,000 for 4,000,000 cumulative gallons.

Work scope/completion criteria: Operate the ETF as a key component of the Tank Farms. The ETF will process the waste to the parameters determined by Process Engineering. The volume of waste processed shall be based on LERF inventory transferred to the Surge Tank as determined by the Process Control Plan. Any processing achieved above the 4,000,000 gallons in FY 2017 will carry over and count towards FY 2018 processing and associated ETF processing milestones.

Completion document: Letter transmitting the performance expectation completion notice and letter report and evidence of completion documenting that the LERF inventory reduction of a total 6,000,000 has been achieved and summarizing the processing results.

**PBI-28.0 CLIN 1 Improve Tank Farm Infrastructure**

**Performance Fee value is established at \$4,100,000 of FY 2017 fee pool.**

**Fee Structure:** Straight-Line Method and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Straight-Line	\$600,000	September 30, 2017
2	Straight-Line	\$500,000	September 30, 2017
3	Terminal	\$150,000	September 30, 2017
4	Straight-Line	\$1,200,000	September 30, 2017
5	Terminal	\$700,000	September 30, 2017
6	Terminal	\$200,000	December 31, 2016
7	Straight-Line	\$750,000	September 30, 2017
<b>Total</b>		<b>\$4,100,000</b>	

**Desired Endpoint/Outcome:**

Improvements to the tank farm infrastructure is essential for providing waste treatment capabilities to meet future need. Upgrading aging infrastructure provides safe, reliable systems which are necessary to support the mission. Replacing the aging tank farm infrastructure through upgrades in the 242-A Evaporator, 222-S Laboratory, AN Farm, AW Farm, AY/AX Farm, and nonfarm specific areas will support projects retrieval of waste activities, direct-feed of low-activity waste to the waste treatment and immobilization plant, etc.

Vapors inefficiencies are captured within the individual projects.

**Fee Bearing Milestones:**

1. Complete two (2) 222-S Laboratory Facility Upgrades by September 30, 2017. The Contractor shall earn \$300,000 of incremental fee upon completion of each upgrade for a total available fee pool of \$600,000.

Work scope/completion criteria: Complete facility upgrades in support of the 222-S Laboratory as follows: 1) replace secondary transformer(s), 2) complete site preparation and slab foundation for new Non-Rad Laboratory.

Completion document: Letter transmitting the performance expectation completion notice(s) and copy of work order signature pages approved through Operations acceptance.

2. Procure and install four (4) 222-S Laboratory Analytical Instruments by September 30, 2017. The Contractor shall earn \$125,000 incremental fee upon completion of each instrument install for a total available fee pool of \$500,000.

Work scope/completion criteria: Procure and install four (4) analytical instruments such as: 1) thermal desorption unit, 2) cold vapor atomic absorption spectrometer, 3) gas chromatograph/mass spectrometer, and 4) total organic/inorganic carbon chromatograph, etc.

Completion document: Letter transmitting the performance expectation completion notice(s) and copy of work order signature pages approved through Operations acceptance.

3. Complete one (1) 222-S Laboratory Facility Upgrade Design by September 30, 2017. The Contractor shall earn \$150,000 incremental fee upon completion of the upgrade design.

Work scope/completion criteria: Complete design of one (1) facility upgrade in support of the 222-S Laboratory as follows: 1) 1J room renovation.

Completion document: Letter transmitting the performance expectation completion notice and a copy of the design documentation for the 1J room renovation.

4. Complete four (4) double-shell tank farm upgrades by September 30, 2017. The Contractor shall earn \$300,000 of fee upon completion of each upgrade for a total available fee pool of \$1,200,000.

Work scope/completion criteria: Complete upgrades in support of the AN, AP, AW, AY/AZ, and/or SY Farm upgrades:

- Installation of wireless freeze protection monitoring for waste transfers in nine (9) pits (one upgrade total);
- Two (2) pump replacements;
- 242-A Instrument Air Dryer Upgrade, and/or
- Replace failed wiring to AW-3 and AW-4 transfer pumps (one upgrade total).

Completion document: Letter transmitting performance expectation completion notice and copy of the work order signature page approved through Operations Acceptance.

5. Complete one (1) basin cover replacement at the LERF by September 30, 2017. The Contractor shall earn \$700,000 of fee upon completion.

Work scope/completion criteria: Complete upgrade in support of the nonfarm specific upgrade as follows: 1) one LERF basin cover replacement.

Completion document: Letter transmitting performance expectation completion notice and copy of the work order signature page approved through Operations Acceptance.

6. Award a contract for procurement of a spare E-A-1 reboiler for the 242-A evaporator by December 31, 2016. The Contractor shall earn \$200,000 of incremental fee upon award.

Work Scope/Completion criteria: Complete all necessary engineering and quality assurance documentation to support the procurement of a spare reboiler. Provide evidence associated with the award of a contract to a vendor for design/build of new safety significant 242-A evaporator reboiler.

Completion document: Letter transmitting performance expectation completion notice and procurement documentation indicating the award of a contract for the design/build of a spare E-A-1 reboiler for the 242-A Evaporator.

7. Complete three (3) double-shell tank farm upgrades in support of DNFSB 2012-2 recommendations for safety significant flow monitoring by September 30, 2017. The Contractor shall earn \$250,000 of fee upon completion of each upgrade for a total available fee pool of \$750,000.

Work scope/completion criteria:

- AZ Farm Power upgrades
- AP Farm SS flow instrumentation installation
- AN Farm SS flow instrumentation installation.

Completion document: Letter transmitting performance expectation completion notice and copy of the work order signature page approved through Operations Acceptance.

**PBI-29.0 CLIN 3 Integrated Tank Farms and WTP**

**Performance Fee value is established at \$1,750,000 of FY 2017 fee pool.**

**Fee Structure:** Straight-Line and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Terminal	\$750,000	August 15, 2017
2	Terminal	\$250,000	September 30, 2017
3	Terminal	\$250,000	September 30, 2017
4	Terminal	\$500,000	September 30, 2017
<b>Total</b>		<b>\$1,750,000</b>	

**Desired Endpoint/Outcome:**

The completion of these activities contribute to increased schedule confidence that Direct-Feed Low-Activity Waste (DFLAW) processing will start by December 2021. This includes providing critical support to major elements of the program such as the Integrated Disposal Facility (IDF) Performance Assessment and the Flowsheet Maturation Plan.

**Fee Bearing Milestones:**

1. Submit the River Protection Project (RPP) System Plan 8 revision by August 15, 2017. The Contractor shall earn \$750,000 of fee upon completion.

Work scope/completion criteria: The RPP System Plan to reflect assumptions approved by the U.S. Department of Energy Office of River Protection in accordance with HFFACO, Ecology et al. 1989) Milestone M-062-40 (due tri-annually).

Completion document: Letter transmitting performance expectation completion notice and a copy of the Contractor-approved RPP System Plan revision.

2. Modify and issue technical documents as required/described in the work scope/completion criteria below by September 30, 2017. The Contractor shall earn \$250,000.

Work scope/completion criteria: Modify and issue the following documents as required to support DFLAW commissioning:

Document	FY 2017
DFLAW First Feed Flowsheet	X
Flowsheet Maturation Plan	X

Completion document: Letter transmitting performance expectation completion notice and a copy of the DFLAW First Feed Flowsheet and the Flowsheet Maturation Plan to ORP.

3. Complete waste form development and performance testing for EMF bottoms disposition either onsite/offsite by September 30, 2017. The Contractor shall earn \$250,000 of fee upon completion.

Work scope/completion criteria: Complete technical report with waste form and performance data for any subsequent regulatory analyses.

Completion document: Letter submitting the performance expectation completion notice and the technical report with waste form and performance data for any subsequent regulatory analyses.

4. Complete the prototype immobilized low-activity waste (ILAW) transporter performance specification and award design/fabrication contract by September 30, 2017. The Contractor shall earn \$500,000 of fee upon award of the design/fabrication contract.

Work scope/completion criteria: WRPS shall complete the award of the prototype ILAW transporter system design/fabrication contract.

Completion document: Award design/fabrication contract for the prototype ILAW transporter system.

**PBI-30.0 CLIN 1 AY-102 Retrieval**

**Performance Fee value is established at \$1,500,000 of Fiscal Year 2017 fee pool.**

**Fee Structure:** Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Terminal	\$1,500,000	March 4, 2017
<b>Total</b>		<b>\$1,500,000</b>	

**Desired Endpoint/Outcome:**

The work outlined in this performance based incentive is required to prepare for and complete tank AY-102 waste retrieval. Completion of tank waste Retrieval activities to meet or exceed performance requirements in the Administrative Order.

**Fee Bearing Milestones:**

1. Complete retrieval operations of AY-102 by March 4, 2017. The Contractor shall earn a total of \$1,500,000 of fee upon completion waste retrieval by March 4, 2017 (Terminal method milestone).

Work scope/completion criteria: Complete waste retrieval operations of AY-102. This includes completion of the AY-102 primary tank waste retrieval operations to the limit of the Modified Sluicing and High Pressure Water technologies.

Completion document: Letter transmitting performance expectation completion notice, a copy of the material balance data and engineering calculation summary information demonstrating retrieval is complete.

**PBI-31.0 CLIN 2 Tank Farm Closure Activities**

**Performance Fee value is established at \$1,450,000 the FY 2017 fee pool**

**Fee Structure:** Straight-Line and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Terminal	\$200,000	September 30, 2017
2	Straight-Line	\$400,000	September 30, 2017
3	Straight-Line	\$450,000	September 30, 2017
4	Straight-Line	\$400,000	September 30, 2017
<b>Total</b>		<b>\$1,450,000</b>	

**Desired Endpoint/Outcome:**

Complete the final Waste Management Area (WMA) C Performance Assessment (PA) documents based upon reviews and complete three (3) WMA C closure documents based upon TPA M-45-82 negotiations. Complete draft of the Integrated Disposal Facility Performance assessment for the ORP and Low Level Waste Facility Review Group (LFRG) review. Complete developing of initial modeling for the WMA A/AX PA.

**Fee Bearing Milestones:**

1. Complete the final WMA C PA documentation in accordance with HFFACO Appendix I and DOE O 435.1. The Contractor shall earn \$200,000 of fee upon completion.

Work scope/completion criteria: The documentation will support the development of closure decisions for WMA C in accordance with HFFACO Appendix I and DOE O 435.1. The WMA C PA will incorporate any revisions required to address comments by regulators and outside organizations.

Completion document: Letter transmitting the performance expectation completion notice and release of final version of the WMA C PA documentation.

2. Complete draft Integrated Disposal Facility Performance Assessment (IDF PA), and provide the draft to ORP and the LFRG, this document shall be provided in a high quality with few modification of final completion and approval. The Contractor shall earn \$200,000 for delivery of draft to ORP, and \$200,000 for delivery to the LFRG for a total available fee of \$400,000 upon completion.

Work scope/completion criteria: Complete all necessary modeling and delivery draft IDF PA to ORP for review with consequent delivery to LFRG for review.

Completion document: Draft IDF-PA report delivered to ORP for review. Draft IDF PA report delivered to LFRG for review.

3. Complete up to three (3) draft WMA C Closure Support Documents based upon DOE Order 435.1. The Contractor shall receive \$150,000 for each completed draft document for total available fee of \$450,000 upon completion.

Work scope/completion criteria: Complete up to 3 drafts of the WMA C Closure Support Documents for DOE's review prior to finalization and submittal. These documents are necessary to meet the requirements of TPA Appendix I and TPA milestone M-056-61A.

Completion document: Letter transmitting the performance expectation completion notice and up to three (3) draft WMA C Closure Support Documents for DOE's review prior to finalization and submittal. 1) draft WMA C DOE O 435.1 Tier 1 Closure Plan; 2) A draft WMA C RCRA Tier 2 Closure Plan; 3) Draft Basis documents for the WMA C WIR determination.

4. Develop conceptual and numerical model for the WMA A/AX. The Contractor shall earn \$200,000 for a report on the conceptual model and \$200,000 for a report on the numerical model for a total available fee of \$400,000.

Work scope/completion criteria: Development of the WMA A/AX conceptual model and the numerical model.

Completion document: Letter transmitting the performance expectation completion notice and draft report documenting the conceptual models and draft report documenting the numerical model. The documentation will be an internal, unreleased technical report.

**PBI-32.0 CLIN 3 Chief Technology Office**

**Performance Fee value is established at \$1,750,000 the FY 2017 fee pool**

**Fee Structure:** Straight-Line and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Terminal	\$750,000	September 30, 2017
2	Straight-Line	\$150,000	September 30, 2017
3	Terminal	\$350,000	September 30, 2017
4	Terminal	\$350,000	September 30, 2017
5	Terminal	\$50,000	September 30, 2017
6	Terminal	\$100,000	September 30, 2017
<b>Total</b>		<b>\$1,750,000</b>	

**Desired Endpoint/Outcome:**

Complete testing and laboratory studies to support disposal related waste form performance necessary for advanced glasses, secondary liquid waste streams, and secondary solid waste forms in support of DFLAW. Complete Pretreatment Engineering Platform (PEP) demobilization. Complete development and demonstration of radioactive waste test platform for specific LAW/ Effluent Management Facility (EMF) bottoms disposition. Complete testing of confined sluicing end-effector (CSEE) retrieval technology and testing of non-visual under tank inspection technologies. Complete necessary studies in support of Waste Feed Delivery Qualification (WFD) for DFLAW.

**Fee Bearing Milestones:**

1. Complete testing and laboratory studies to support disposal related waste form performance necessary for advanced glasses, secondary liquid waste streams, and secondary solid waste forms by September 30, 2017. The Contractor shall earn \$750,000 upon submittal.

Work scope/completion criteria: Complete testing and laboratory studies to support disposal related waste form performance necessary for advanced glasses, secondary liquid waste streams, and secondary solid waste forms by September 30, 2017:

- Report detailing the results of the advanced glass testing including glass rate dissolution rate parameters and potential secondary phase formulation.
- Report detailing the results of secondary liquid waste form performance including constituents and 4 melter runs.
- Report detailing the secondary solid waste form performance as part of the IDF-PA needs.

Completion document: Letter submitting the performance expectation completion notice and the comprehensive reports described above.

2. Complete development of radioactive waste test platform for processing tank waste into a LAW form by initiating test platform operations by September 30, 2017. The Contractor shall earn \$50,000 for design, procurement, and installation of equipment necessary for processing tank waste into LAW waste form and \$100,000 of fee for initiating test platform operations and pretreating 1 gallon of waste for total available fee of \$150,000.

Work scope/completion criteria: The Contractor shall 1) design, procure, install the equipment necessary for processing tank waste; and 2) pretreat a minimum of 1 gallon of waste through development, installation, and operation of a system capable of processing the waste into a Low Level Waste form.

Completion document: Letter(s) transmitting performance expectation completion notice(s) and 1) letter documenting WRPS walkdown concurrence that the equipment is installed at the test platform location, and 2) letter documenting results.

3. Complete cold testing of an alternate retrieval technology to demonstrate its potential effectiveness as a retrieval technology. The Contractor shall earn a total of \$350,000 of fee for completion of the initial testing and submittal of the final test report by September 30, 2017.

Work scope/completion criteria: Define the alternate retrieval technology configuration, develop a test platform, develop test plan, and complete initial effectiveness testing and submit the final test results report.

Completion document: Letter transmitting the performance expectation completion notice and the final test report.

4. Complete cold testing demonstration of non-visual inspection technology to demonstrate its potential effectiveness as a double-shell under tank inspection technology. The Contractor shall earn a total of \$350,000 of fee for completion of the initial testing and submittal of the final test report by September 30, 2017.

Work scope/completion criteria: Define the under tank inspection technology and configuration, develop a test platform, develop test plan, and complete initial effectiveness testing and submit the final test results report.

Completion document: Letter transmitting the performance expectation completion notice and the final test report.

5. Complete demobilization of the pretreatment engineering platform (PEP) to support excessing the equipment. The Contractor shall earn a total of \$50,000 of fee for documentation of the demobilization by September 30, 2017.

Work scope/completion criteria: Complete demobilization of the pretreatment engineering platform (PEP).

Completion document: Letter transmitting the performance expectation completion notice and final completion report.

6. Complete necessary studies in support of the DFLAW waste feed delivery qualification program. The Contractor shall earn a total of \$100,000 of fee for documentation of the completed studies necessary for waste feed qualification program by September 30, 2017.

Work scope/completion criteria: Complete and document studies necessary for the DFLAW waste feed delivery qualification program.

Completion document: Letter transmitting the performance expectation completion notice and final technical report describing the results of the studies for the waste feed qualification efforts.

**PBI-33.0 CLIN 5 Low-Activity Waste Pretreatment System**

**Performance Fee value is established at \$3,825,000 the FY 2017 fee pool**

**Fee Structure:** Straight-Line Method and Terminal Method

<b>Milestone</b>	<b>Method</b>	<b>Fee Value</b>	<b>Due Date</b>
1	Terminal	\$575,000	June 30, 2017
2	Terminal	\$1,250,000	September 30, 2017
3	Terminal	\$1,250,000	September 30, 2017
4	Terminal	\$750,000	September 30, 2017
<b>Total</b>		<b>\$3,825,000</b>	

**Desired Endpoint/Outcome:**

Support the DFLAW mission of providing filtered Low-Activity Waste (LAW) to the WTP for glassification and ultimately reduce the volume of the LAW in the double-shell tanks at Hanford.

**Fee Bearing Milestones:**

1. Submit the Low Activity Waste Pretreatment Project (LAWPS) 60% Design Review Documents/Package to ORP for review by June 30, 2017. The Contractor shall earn \$575,000 in fee upon completion.

Work scope/completion criteria: The 60% Design Review Documents/Package for the LAWPS will consist of primarily alpha revision design (with the exception of the P&ID/V&ID, numeric revisions) and will include the following:

- Calculations
- Studies
- Specifications (construction/performance)
- General Arrangement Drawings
- Plot plans
- Building plans
- Sections/Elevations
- P&ID, V&ID, etc.

The Design Package will have been through the WRPS design review with comments collected, dispositioned, and a comment incorporation path forward planned.

Completion document: Letter transmitting the performance expectation completion notice and 60% Design Review Documents/Package to ORP for review.

2. Complete the LAWPS Engineering-scale Integrated Test and Full-scale Ion Exchange Column Test by September 30, 2017. The Contractor shall earn \$1,250,000 upon completion

Work scope/completion criteria: The scope of Engineering Scale Integrated Test and Full-scale Ion Exchange Column Test comprises a series of prototypic tests during CD-2 design to test interactions between equipment at scale to inform/validate the final design of the permanent plant. The testing shall comprise completing the base test scope commenced in FY 2016 of the four critical technologies identified in the Technology Maturation Plan in an integrated manner at a nominal one-ninth scale. In addition, a separate series of tests will be conducted on a prototypic full-scale ion exchange column, recirculation system and resin de-watering function.

Completion document: Letter transmitting the performance expectation completion notice and Contractor-issued Summary Test Report.

3. Submit the LAWPS Preliminary Safety Design Report (PSDR) by September 30, 2017. The Contractor shall earn \$1,250,000 upon submittal.

Work scope/completion criteria: The Contractor shall complete the updated LAWPS PSDR with the initial ORP comments dispositioned and incorporated so that the document is ready for U.S. Department of Energy Headquarters (DOE-HQ) concurrence. This assumes a 30-day ORP review cycle after the Contractor initial submittal of the PSDR. The updated PSDR shall reflect current design changes in active ventilation, flammable gas mitigation, radioactive inventory monitoring, and misroute prevention, as well as enhanced description of the confinement strategy and natural phenomenon hazard mitigation.

Completion document: Letter submitting the performance expectation completion notice and PSDR to ORP.

4. Submit a complete LAWPS RCRA permit application to ORP by September 30, 2017. The Contractor shall earn \$750,000 in fee upon completion.

Work scope/completion criteria: The complete LAWPS RCRA permit application will consist of all the applicable information elements required by WAC 173-303-806, as determined by ongoing permitting discussions with Ecology. This includes, among a number of other narrative sections and documents, a final Part A form; PE-certified facility design documentation such as engineering drawings, specifications and calculations; and a design assessment report certified by an independent qualified registered professional engineer (IQRPE). The complete application will be certified by Contractor senior management consistent with the Contractor's role as cooperator of the proposed LAWPS facility.

Completion document: Letter transmitting the performance expectation completion notice and copy of the Contractor-issued and certified LAWPS RCRA permit application package.

**SPECIAL EMPHASIS AREA  
 OVERALL GRADES & ASSOCIATED PERCENTAGES OF EARNED FEE**

Award-Fee Adjectival Rating	Award-Fee Pool Available To Be Earned	Description
Excellent	91%-100%	Contractor has exceeded almost all of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Very Good	76%-90%	Contractor has exceeded many of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Good	51%-75%	Contractor has exceeded some of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Satisfactory	No Greater Than 50%	Contractor has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Unsatisfactory	0%	Contractor has failed to meet overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.

Award Fee: The period of performance is October 1, 2016, through September 30, 2017. The total available fee is split between the PBIs and SEAs. At the conclusion of the 12-month evaluation period DOE will determine the award fee associated with the SEAs. ORP's evaluation of the contractor's performance in the SEAs will be combined to an overall rating. **Failure in any of the SEAs could result in a change to the overall rating as determined by the Fee Determination Official.**

To be minimally acceptable, all contractor formal products by contract, DOE Order, regulation, procedure, plan, or DOE written direction shall be complete, accurate, and on schedule. Requirements shall clearly flow down and be transparent within the product and ensure compliance with ES&H and QA requirements. Evidence of unsatisfactory performance on the part of the contractor is: (1) technical errors or omissions in contractor developed products, (2) performance not completed by close of business on the agreed upon date scheduled, and (3) non-compliance with designated Completion Criteria.

## **SEA 1: Management of Single-Shell Tank (SST) and Double-Shell Tank (DST) System**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool**

### **Desired Outcome:**

In the execution of the contract, Contractor is expected to provide holistic, comprehensive, and effective management as conscientious stewards of all Tank Farm facilities and activities through:

- Demonstrating safety leadership and risk-informed, conservative decision-making
- Anticipating project challenges and providing timely resolution
- Open communication with the workforce – fostering a questioning attitude and an environment free from retribution
- Aggressive self-discovery of project issues to ORP through critical self-analysis, meaningful performance monitoring, comprehensive extent of condition reviews, and effective risk identification and management
- Management focus on maintenance, compliance, surveillance and integrity of the Tank Farms facility.

**Areas of focus** include overall Contractor management of the Hanford Tank Farm facilities and systems including SST and DST infrastructure, DST Chemistry, SST and DST Integrity, and Support for WTP Commissioning.

**Evaluation criteria** to measure performance will include ORP's subjective evaluation of the contractor's performance based on the following:

### **Overall Tank Farm Management**

Demonstrate effective long-term stewardship of the entire Hanford Tank Farm project facilities and processes through:

1. Demonstrating safety leadership and risk-informed, conservative decision-making.
2. Anticipating project challenges and providing timely resolution.
3. Open communication with the workforce – fostering a questioning attitude and an environment free from retribution, building trust and promoting transparency, including communication of vapor-related work through a comprehensive, user-friendly public website.
4. Aggressive self-discovery of project issues to ORP through critical self-analysis, meaningful performance monitoring, comprehensive extent of condition reviews, and effective risk identification and management.

5. Ensure spares are on hand to reduce delays in mission operations due to procurement or construction.

### **SST and DST Infrastructure**

General maintenance of all SST and DST Infrastructure, to include but not limited to:

1. Perform required design and upgrades to the DST system necessary to support the Direct Feed Low-Activity Waste Project.
2. Maintain existing DST ventilation and support upgrades as necessary.
3. Prioritize and perform necessary infrastructure upgrades such as but not limited to: waste transfer system pit modifications, transfer pump and jumper replacements.

### **DST Chemistry and Integrity**

The maintenance of DST and waste transfer system piping and associated containment system (waste transfer fitness for service) integrity is crucial to cost-effective completion of the tank waste cleanup mission. The Contractor shall:

1. Maintain tank chemistry per Operations Specifications Documents to ensure long term integrity of tanks
2. Obtain better understanding of the susceptibility of the primary and secondary liners to corrosion.
3. Support work done by Pacific Northwest National Laboratories in order to automate updating of the Monthly Tank Waste Summary Report.

### **Single-Shell Tank Integrity**

Maintain the SST Integrity program.

1. Continue routine SST video inspections and dome reflection surveys in support of SST structural integrity and SST intrusion investigations.
2. Ensure prompt and thorough review of monitoring data.
3. Evaluate ways to minimize the resources required to verify and validate monitoring data as well as minimize the required time in field to obtain monitoring data.

## **SEA 2: Performance of Tank Farm Project Operations – Conduct of Operations**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool.**

**Desired Outcome:** Ensure focus is maintained on overall safety and efficiency of Tank Farm project operations through improvements in Conduct of Operations and Work Control.

**Areas of focus** include Work Control/Procedure Development process continuous improvement, the field implementation of work instructions, general Conduct of Operations improvement.

**Evaluation criteria** to measure performance will include ORP's subjective evaluation of the contractor's performance based on the following:

1. DOE oversight indicates WRPS self-identification of event precursors and resolution of causal factor prior to significant issues or consequential ( $\geq$ SC-2) events;
2. Personnel are cognizant of and avoid at-risk behaviors and conditions. Senior Managers (Level 0, 1, 2) are proactive in identifying these behaviors and correcting conditions in the field through established WRPS processes (i.e., Problem Evaluation Requests, Management Observations Program/Worksite Visits, assessments, investigation process, etc.) that result in improved WRPS performance;
3. Responsiveness to and management of performance and assessment areas needing attention as identified by contractor self-assessments, ORP assessments, and external reviews as evidenced by a high ratio of WRPS self-identified issues that eliminate the need for ORP issues to be identified and minimal ORP rejection of corrective action plans;
4. Additional trending data such as Occurrence Reporting and Processing System Reports, Problem Evaluation Requests, and Performance Indicators are established and monitored for Conduct of Operations and Work Control that monitor the health and status of the programs to both normalize and evaluate the safety significance of trending data and Contractor management takes actions to mitigate performance deficiencies;
5. Tank Farm general area housekeeping and maintenance is improved. Examples may include overall radiological zone reduction, farm signage and equipment labeling, and demonstrated reduction of radioactive contaminated material and equipment;
6. The Conduct of Operations Council Focus demonstrate continuous improvement as evidenced by Contractor performance indicators, effective improvement initiatives, and/or Contractor/ORP oversight results. Examples may include items such as implementing continued work control enhancements, senior management field presence, Conduct of Operations/Mentors/Senior Technical Engineer ownership of Conduct of Operations initiatives and issues, additional Human Performance Improvement Labs, response to abnormal events or lessons learned, training program status and initiatives, or drill program improvement;

7. Production Operations Transfer and Single-Shell Retrieval and Closure Transfer processes, where applicable, demonstrate continuous improvement and consistency between the two line organizations for increased safety or more efficient transfer process.
8. Contractor conduct of operations principles are effectively applied in operational, maintenance, and upgrade activities incorporating practices that result in an effective hierarchy of controls being implemented to mitigate Tank Farm hazards which include chemical hazards.
9. Effectively control vegetation and biological vectors within TOC radiological posted areas, which have potential to spread contamination through root take-up and transport mechanisms and animal intrusion and subsequent transport;

**Conduct of Engineering** – Improvement in effectiveness, consistency of Engineering systems and programs.

1. Identify, evaluate and provide effective and timely solutions to emerging Tank Farms technical issues.
2. Provide efficient and sound Process Engineering support to on-going or new Tank Farms projects, including Sampling and Analysis Plans and Best and Tank Inventory Reports.
3. Maintain the Engineering Change Notice backlog > 3 years old below 30.
4. Monitor and continue to maintain design errors that result in engineering or field rework at acceptable levels.
5. Continue to monitor and improve ventilation system performance maintaining a 90 percent availability.
6. Initiate application of Reliability Centered Maintenance or similar reliability improvement principles on a selected TOC system as one means of improving reliability.
7. Develop and issue up-to-date piping specifications to ensure appropriate application of ASME B31.3 Process Piping Guide for the TOC facilities.
8. Implementation of further enhancements to SmartPlant® Foundation document control and configuration management system to support effective implementation of the Contractor's processes.
9. Provide innovative engineering solutions that result in improved safety and/or radiological safety performance.
10. Where appropriate standardize Tank Farm tools and equipment.
11. Complete implementation of the improved Engineering qualification and training process and other changes addressed in the revision to TFC-ENG-PLN-03.

12. Continue to monitor and reduce issues related to Technical Rigor.

**Conduct of Maintenance –**

1. Establish a technical basis for what constitutes steady state level for corrective maintenance (CM) backlog and a 25% reduction in prioritized repairs. Maintain CM backlog less than the established range within priorities for CM of equipment critical to Documented Safety Analysis (DSA)/Technical Safety Requirement and environmental compliance
2. Establish deferred maintenance processes and achieve a 50% reduction in delinquent items to support the long term goal of zero delinquent preventive maintenances; Establish a technical basis for what constitutes steady state level for preventive maintenance backlog and maintain preventive maintenance backlog less than the established range within priorities for preventive maintenance of equipment critical to DSA/Technical Safety Requirement and environmental compliance;
3. Identification and implementation of at least two improved stewardship opportunities (i.e., Tool Crib equipment tracking), including metrics to demonstrate improvement;
4. Improve maintenance of equipment to prevent and resolve radiological leaks (e.g., ventilation ducting, ETF system leaks, etc.).

**Work Processes –**

1. Measure performance of work scheduling versus work execution effectiveness, evaluate the causes for cancelation of planned work, evaluate trends and respond to improve performance.
2. Evaluate work packages for appropriate level of planning, including use of “skill of the craft” and effective integration of controls into work instructions.
3. 900 (75/month) management oversight observations of work execution.

### **SEA 3: Cost and Management Performance**

**Performance Fee value is established at \$6,675,000 of FY 2017 fee pool.**

**Desired Outcome:** Contractor's cost and schedule performance is in alignment with the negotiated estimated costs and milestone dates contained in the contract. Contractor maintains a fully integrated cost, schedule and risk/opportunity management program.

**Areas of Focus:** Includes Contractor's Cost/Schedule, Earned Value Management System (EVMS)/Reporting, and Risk/Opportunity Management Performance.

**Evaluation Criteria:** To measure performance based on ORP's evaluation of the following criteria:

**Cost/Schedule Management** – ORP will evaluate the Contractor's cost and schedule management based upon Contractor's actual incurred costs and performance compared to the contract costs estimated completion dates of that work under active CLINs and Sub-CLINs (identified in Table B.4-1 of the Contract) within the award fee evaluation period. The analysis of cost and schedule control performance will give consideration to changed programmatic requirements, changed statutory requirements, and/or changes beyond the Contractor's control. ORP will rely on objective and/or subjective cost and schedule performance elements to evaluate the Contractor's performance, which includes, but is not limited to the following:

Cost/Schedule Performance Indices – Evaluate and utilize cost and schedule performance indices in support of sound project management practices including implementation of cost and schedule recovery initiatives as appropriate.

Acumen Fuse 14 Point Schedule Check – Complete Acumen Fuse 14 point schedule check evaluation on TOC Baseline schedule and track/trend schedule health improvement. Perform additional schedule health checks as beneficial to assessing or improving EVMS health.

Effective Change Control Process and Baseline Management – Includes monthly evaluation of MR utilization and effective implementation of Authorized unpriced scope. Timely implementation of baseline changes in support of effective execution plan management.

Cost Savings/Avoidance – Perform 2 Lean/Rapid Improvement Events on a quarterly basis. Document and provide potential cost savings/avoidance opportunities to ORP.

Portfolio Management – Establish a disciplined Portfolio Management process in support of EM Operations Activities Protocol policy including development of a fiscal year work plan with above/below the line scope that maintains alignment of budget and funds and ensures EACs are reconciled with funding targets while planning for an appropriate amount of carryover to cover outstanding year-end commitments. Supports reinvestment of identified cost savings to perform additional work scope or addresses emergent directed work scope as applicable. Provide the Monthly Funds Analysis Report to communicate contract funding needs for duration of the contract.

Estimate Bench-Marking – Develop benchmarking information for 3 significant recurring activities. The benchmarking information will include a reasonable number of data points for each recurring activity. It will also include a narrative describing the scope of the activity and the specific characteristics of each data point to allow the data points to be normalized. Examples of significant recurring activities are SST retrieval total costs, SST retrieval design costs, SST retrieval PM costs, SST waste transfer pump replacement costs, trailer installation costs, etc. Also, use established estimate benchmarks as an input in project estimating activities as applicable (for instance, in the development of proposal estimates, fiscal year work plans, or other related products).

Improved Control Account Manager (CAM) Training – Maintain CAM qualification program in support of improved training, with greater than 85% of all current CAMs maintaining the CAM Qualification Card.

**EVMS/Reporting** – ORP will evaluate the Contractor’s effective use of EVMS in managing their projects to ensure that sound management actions are taken when negative variances and/or cost overruns are projected. Development and submittal of the TOC Monthly Report shall meet contract requirements, be submitted on time, and of high quality. ORP will rely on objective and/or subjective cost and schedule performance elements to evaluate the Contractor’s performance, which includes, but is not limited to the following:

Perform quarterly internal/joint surveillance of at least 50 EVMS Lines of Inquiry, specific to the Contractor Project Controls System Description (TFC-PLN-147), in alignment with DOE Order 413.3B, Earned Value Management System (EVMS) and Project Analysis Standard Operating procedure (EPASOP), and EIA-748 compliance expectations. Ensure that all 32 EVMS Guidelines are evaluated on an annual basis through the surveillance and project data-driven analysis process.

TOC Monthly Report – Prepare and submit TOC Monthly Report on time and with high quality.

Corrective Action Tracking/Closeout – Demonstrate proactive identification of variance conditions requiring corrective action and effective management of corrective actions to closure.

Reporting Tools/Systems – Demonstrate effective implementation of the Contractor Integrated EVM System. Develop and enhance project management tools and reports in support of performance monitoring, predictive analysis, and identification of recovery plan actions.

Program Log Reconciliation – Maintain monthly logs for Contract Budget Base and Total Allocated Budget, to include all transactions affecting Management Reserve, Undistributed Budget, and Authorized Unpriced Work tracking and aging.

**Risk/Opportunity Management** – DOE will evaluate the Contractor’s Risk and Opportunity Management performance within the award fee period based upon the Contractor’s ability to identify the risks associated with the execution of their work and assess their potential impact. ORP will rely on objective and/or subjective risk/opportunity performance elements to evaluate the Contractor’s performance, which includes but is not limited to the following:

Active risk registers developed for all line item projects, and category 1 and 2 projectized operational activities as defined in TFC-PLN-84.

Application of disciplined processes to:

- Forecast the expected impacts of future risks and opportunities consistent with project schedules and to-go work
- Assess the sum of the budget utilized to respond to or handle risks.
- The frequency of contractor risk register updates (i.e., the number of registers beyond the 90 day update cycle required by the Contractor risk management procedure).
- The quality of regular monthly reporting of risks and opportunities.
- Execution of the contractor risk management process, such as how risk workshops are conducted, how risks, opportunities, and handling actions are identified, and the methods used and level of effort expended to quantify and document the characterization of risks and opportunities.
- Complete a detailed analysis of schedule risk associated with the LAWPS line item project (for example, a Monte Carlo or Schedule Risk Assessment).

**SEA 4: Quality Assurance Program**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool.**

**Desired Outcome:** Continued improvement of the contractor's QA program.

**Areas of Focus for Quality Assurance Program Improvement:**

Effectiveness of the contractor's QA program in providing products and services that are satisfactory for their intended function. Effectiveness will be measured by the ability of the products and services to be used as originally produced or provided, versus the need for rework to reach an acceptable status. Self-identification of quality-related problems, as well as prompt, effective corrective actions, is required rather than having those problems identified by ORP or by external organizations.

**Evaluation Criteria** for measuring the contractor's QA program performance will include ORP's subjective evaluation of the contractor's progress based on the following:

Adequate flow-down and effective application of TOC QA program management criteria (TFC-PLN-02, Quality Assurance Program Description);

Improved efficiency and timely reporting in the performance of the independent QA audit process, including adequate auditor and auditee resources to support scheduled QA audits;

Improved management of QA program requirements including the ability to demonstrate compliance with contractually imposed standards in applicable program plans and implementing procedure provisions (steps);

Effective planning and performance of QA Surveillance consistent with the Contractor's graded-approach;

Effective performance of the procurement quality funding, including Vendor Oversight, consistent with the Contractor's graded-approach; and

Improved Software Quality Assurance implementation and supporting documentation.

**SEA 5: Nuclear Safety**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool.**

**Desired Outcome:** Improvements in the Management of the Tank Farms safety basis, and required amendments.

**Areas of Focus** include Contract requirements and responsiveness to emerging issues, high visibility items, and any areas needing attention as identified by contractor self-assessments, ORP assessments, and external reviews.

**Evaluation criteria** to measure performance will include ORP's subjective evaluation of the contractor's performance based on the following:

Completion of Planned Improvements identified in the 242-A Evaporator and Tank Farms DSA;

Timely declaration and management of Potential Inadequacies in the Safety Basis;

Unreviewed Safety Question process compliance with 10 CFR 830.203 and DOE Guide 424.1-1, Implementation Guide for Use in Addressing Un-reviewed Safety Question Requirements;

Responsiveness to and management of performance and assessment areas needing attention as identified by contractor self-assessments, ORP assessments, and external reviews; and

Proactive development of DSA amendments and Justifications for Continued Operations to identify and resolve implementation challenges prior to transmittal to ORP for approval.

**SEA 6: Environmental Regulatory Management**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool.**

**Desired Outcome:** Demonstrated improvement in environmental stewardship

**Areas of Focus for environmental stewardship and compliance:**

Environmental Management System and performance metrics;

Permitting documents and compliance to permits and licenses and environmental reporting;

Number and seriousness of any findings of noncompliance, infractions or violations, and timeframes and quality of related reporting and responses.

**Evaluation criteria** to measure performance will include ORP's subjective evaluation of the contractor's performance based on the following:

Quality and implementation of the documented environmental protection program and the contractor's establishment and implementation of environmental performance metrics;

Data and regulatory approaches are prepared in a timely manner and integration with Hanford Site regulatory compliance to support annual reports and compliance activities;

Quality, timeliness, completeness, and technical accuracy of environmental reports, and permitting and licensing documents. Permit and license documents are of high quality, have been integrated into project schedules which reflect adequate and appropriate timeframes for DOE and regulatory review. Permit and license documents are technically accurate, with minimal revisions needed and fast track approval of submittals is not needed. This includes:

Number and seriousness of any noncompliances, infractions, or violations and the timeliness and quality of related reporting and responses;

Implementation of waste minimization and pollution prevention practices;

Coordination of environmental activities across Contractor (e.g., areas such as permitting actions amongst One System, Contractor Environmental, and Retrieval and Closure, and direct contracting with other site contractors to ensure proper implementation of requirements) and effective use of resources;

Develop an integrated permitting strategy supporting the DFLAW Project (LAWPS, DST upgrade, LERF/ETF) which includes a schedule for delivery of draft permit application materials for review by ORP. Identify specific information required to develop draft DFLAW permitting/licensing materials (e.g., LAWPS, DST upgrades, LERF/ETF) to support the permitting plans agreed to with Ecology. Provide draft permitting/licensing materials for the required submittal to Ecology.

## **SEA 7: Safety Program Implementation**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool.**

**Desired Outcome:** Ensure focus is maintained on overall safety and efficiency of Tank Farm Project through improvements in radiological controls, industrial health and safety, and emergency preparedness.

**Areas of Focus** include radiological control, industrial health and safety, emergency preparedness.

**Evaluation criteria** to measure performance will include ORP's subjective evaluation of the contractor's performance based on the following:

### Radiological Controls:

1. Evaluate and implement appropriate configurations of radiological control points to allow for efficient control point operations.
2. Improvement of radiological conduct of operations, procedure compliance demonstrated by documented oversight. Emphasis in the area of release surveys and boundary control.
3. Emphasize the as low as reasonably achievable (ALARA) concept to drive occupational dose to the lowest reasonably achievable level.
  - Improvement in documentation of ALARA lessons from TOC work activities, and incorporation of those lessons into new TOC work activities.
  - Continued development of innovative tools and processes to reduce dose.
  - Improvement in tracking of extremity dose through the year to better predict and drive lower the dose taken.

Reduction in the overall radiological risk through appropriate management/reduction of radiological areas with high dose rates and levels of contamination.

### Industrial Health and Safety:

1. Assessment of compliance to Industrial Safety (IS) programs and procedures will occur as scheduled. Focus on vehicle safety, impacts of increased SCBA use, and electrical safety practices.
2. Assessment of compliance to Industrial Hygiene programs and procedures will occur as scheduled. Continue implementing a cycle for the control and continuous improvement of Industrial Hygiene programs, procedures and products. Areas shall include, but limited to: Chemical Gases and Vapors; Beryllium; Asbestos; Thermal Stress; Industrial Noise; Field Ergonomics; EJTA; Heavy/Toxic Metals (e.g., Pb, Cd, Cr, Hg, etc.); Non-ionizing Radiation; EJTA; HazCom; Indoor Air Quality; Respiratory Protection; Blood Borne Pathogens and Carcinogens; Silica; and Emergency Preparedness and Dose Reconstruction.

3. Industrial Hygiene Rounds and Routines process is implemented at TOC. Develop initial or baseline surveys for: Asbestos for non-occupied buildings that were constructed no later than 1980; Develop site wide matrix for Stack Emissions, Vapors, and non-Vapor odors (e.g., diesel motors, sewer manholes, portable toilets and subsequent maintenance.); Establish Soil Contamination administrative controls (similar to RADCON to sample any soil disturbance prior to disturbance operations). Develop site wide matrix for soil areas which document past spills and contamination; Develop site wide matrix for heavy/toxic metals (e.g., Pb, Cd, Cr, Hg, etc.); and Develop site wide matrix for silica. Provide initial or baseline surveys and periodic resurveys and incorporate comprehensive data.
4. Remaining Conex Boxes and structures will be sampled/evaluated according to the Hanford Site-Wide CDBPP (DOE-0342) and its referenced sub-tier beryllium procedures. An integrated schedule and metrics will be used to manage performance (against the March 2015 baseline) and ensure sampling is completed.
5. Industrial health and safety related communications will be distributed the WRPS workforce. For Industrial Health provide quarterly comprehensive updates to topics of high visibility and/or concern for employees and general public, e.g., SCBA/Breathing Air odors, Regulator Cleaning Process, Tank Farm/Site Wide vapor and odor concerns, Stack emissions, and cross contamination of respiratory protection equipment. Continue seasonal appropriate communication/briefing/training/knowledge, e.g., Heat Stress.
6. WRPS will continue industrial health and safety related outreach and benchmarking activities, at least one per quarter.
7. Hanford Site Programs support and effective implementation of revisions to these processes to drive continuous improvement.
8. Promote an effective safety conscious work environment and culture through implementation of programs and dissemination of expectations in order to establish a work environment in which employees feel free to raise safety concerns to management and/or a regulator without fear of retaliation.

Emergency Preparedness:

1. Conduct a minimum of one evaluated field drill a quarter that minimizes simulations and control cell actors in order to maximize field responses by Facility Emergency Response Organization (FERO) and skilled support personnel (i.e., health physics technician, industrial hygiene technician, NCO). Two of these drills shall integrate Hanford Fire Department and/or Hanford Patrol such that FERO members interact directly with their counterparts (e.g., FOS and On-scene Coordinator) in the field.
2. Conduct two (2) no-notice Incident Command Post limited drills in FY 2017 requiring FERO activation. One of these drills shall be conducted on a weekend or off-shift.

3. Conduct Event Scene Set-up and Hanford Fire Department doffing for all four Production Operations Shifts.
4. Conduct a drill involving a severe event that results in hazards from adjacent facility (i.e., PUREX or Contractor multiple event scenes) that causes loss of an infrastructure capability (power, radio, phone, HLAN network, cell phone, water).

## **SEA 8: Support for DFLAW and WTP Commissioning**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool**

### **Desired Outcome:**

**Development of improved Management systems and technical support for WTP commissioning.** Areas of focus include overall Contractor management of the Hanford Tank Farm facilities and systems including for WTP commissioning.

**Evaluation criteria** to measure performance will include ORP's subjective evaluation of the contractor's performance based on the following:

DFLAW Integration – Coordinate, trace, measure and report on a prioritized set of activities and timing in a DFLAW Integrated Schedule to fully integrate Tank Farms, WTP and other Hanford Site Contractors to meet the contractual dates for startup and commissioning of DFLAW.

Transition - Recommend to ORP actions needed to more effectively and efficiently conduct the transition to DFLAW startup, commissioning, and operation.

Flowsheet Management - Continuously improve a long-term RPP integrated flow sheet stewardship and technical management process that involves the national laboratories. Flowsheet management also includes waste feed qualification and delivery.

System Planning - Provide for the integration of TOC and WTP system planning and modeling, with a focus on long-term RPP mission planning, TPA milestone support, software modeling and development.

Contract Management - Identify those DOE directives and contract changes needed to align and/or maintain aligned the TOC Contractor and Bechtel National, Inc. contracts, and establish an optimum or necessary time to have each item aligned.

Chief Technology Office - Establish an integrated national laboratory support program for TOC Contractor including procurement, communication, reporting protocols, and a mission directed research and development program. Develop an integrated TOC Contractor technology development roadmap including integration with TOC Contractor mission planning documents (System Plan, Risk Management Plan, etc.) and DOE-HQ technology development program.

Project Management - Management of the Project Management Program is effective and supports the LAWPS Project.

DFLAW Execution Process - TOC Contractor direct field execution of projects and activities supporting DFLAW startup.

**SEA 9: Contractor Assurance System (CAS)**

**Performance Fee value is established at \$835,000 of FY 2017 fee pool.**

**Desired Outcome:** Ensure focus is maintained on an effective CAS in accordance with DOE Order 226.1B. Effective implementation of the approved CAS will provide assurance that workers, the public, and the environment are adequately protected. Requirements delineated in the contract and/or DOE approved plans are effectively implemented in a manner to ensure work performance meets the applicable requirements for environment, safety, and health, including quality assurance and integrated safety management; safeguards and security; cyber security; and emergency management.

**Evaluation Criteria** to measure performance will include ORP's subjective evaluation of the contractor's performance based on the following:

1. Self-discovery of project issues through critical self-analysis, meaningful performance monitoring, comprehensive extent of condition reviews, and effective risk identification and management.
2. An issues management process that supports categorization, tracking, trending, and analysis of performance data. Corrective actions are clear, appropriate, and effective.
3. Independent evaluation of the CAS by entities such as corporate parent companies.
4. Open and continuous communication on issues identified with the CAS and/or programs that make up parts of the CAS.
5. Assessment and investigation processes proactively identify noncompliances and opportunities for improvement that result in improved performance.
6. Flow down of CAS implementation requirements to work performed by subcontractors.
7. Metrics are effectively used to provide an accurate picture of current performance against goals.
8. Lessons learned experiences and good practices are incorporated into the overall work process and used to inform the organizations of adverse work practices or experiences.
9. Programs are established to promote quality awareness and ownership at the worker level.

**ATTACHMENT 2 - PERFORMANCE MONITOR EVALUATION REPORT FORM**

**I. EVALUATION PERIOD:** \_\_\_\_\_

**II. DOE PERFORMANCE MONITOR:**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**III. PERFORMANCE BASED INCENTIVES (PBI) EVALUATIONS:**

**PBI #** \_\_\_\_\_ **Recommended Fee Earned** \_\_\_\_\_

**Discussion:**

**IV. EVALUATION OF AWARD FEE SPECIAL EMPHASIS AREAS:**

**SEA #** \_\_\_\_\_ **Adjective Rating** \_\_\_\_\_

**Discussion:**

Discussion summaries should describe the method used to evaluate timeliness, quality and completion of performance objectives/measures; clarifying remarks regarding the timeliness and sufficiency of the products/activities against defined performance objectives/measures; identification of significant deviations; rationale for recommended fee payment/rating (if necessary, provide computations); and mitigating factors, if any, that were considered in determining the amount of fee.

Areas to consider:

1. Contractor monthly performance indicator results including positive or negative trends.
2. Management reviews and reports including the new monthly reviews.
3. Contractor's self-assessment report.
4. DOE independent and program assessments.
5. Issues and corrective action of issue

**ATTACHMENT 3 - FDO AND PERFORMANCE EVALUATION BOARD  
MEMBERS**

**FEE DETERMINATION OFFICIAL**

Manager, ORP

**PERFORMANCE EVALUATION BOARD MEMBERSHIP**

Assistant Manager, Tank Farms Project, ORP (Chair Person)

Deputy Assistant Manager, Tank Farms Project, ORP

Assistant Manager, Technical and Regulatory Support Services, ORP

Manager, WTP Start-up and Commissioning Integration, ORP

Contracting Officer, Contracts and Property Management, ORP

**ATTACHMENT 4 - PERFORMANCE EVALUATION AND MEASUREMENT PLAN  
 CHANGE REQUEST**

1. Initiator of Change Request:		2. Office Symbol:	3. Phone No:
4. Current Version of PEMP:	a. Revision No:	b. Change No:	5. Date of Request:
6. Reason for Request:			
7. Authority for Change: a. Technical Direction Letter <input type="checkbox"/> b. Contracting Officer Letter <input type="checkbox"/> c. Baseline Change Proposal <input type="checkbox"/> d. Other <input type="checkbox"/>		e. Explain reason for change here, if necessary: (required for Other)	
8. Section No. in PEMP of Change:			
9. Exact Wording: (rewrite the section with changes identified)			
10. Request Disposition: a. Accepted, Change Implemented <input type="checkbox"/> b. Accepted with Changes <input type="checkbox"/> c. Rejected <input type="checkbox"/> d. Other <input type="checkbox"/>		11. Comments: (including changes made, rejection reason, or other)	
12. Approved By:	13. Effective Date:	14. New PEMP Rev No/Change No.:	
		a. Rev No:	b. Change No.:

**ATTACHMENT 5 - INTERIM RATING CHART – OBJECTIVE AND SUBJECTIVE ITEMS**

ORP will use this separate color-coded table for informal monthly performance evaluations. The final evaluation will reflect the adjectival rating scale in Attachment 1.

		<b>OBJECTIVE ITEMS</b>	<b>SUBJECTIVE ITEMS</b>
<b>Dark Blue</b> “Excellent” Performance		<ul style="list-style-type: none"> <li>- Objective measures are achieved on or ahead of time</li> <li>- Very high probability of achieving the outcome</li> <li>- Meeting all Cost, Scope, and Schedule objectives</li> <li>- Very high degree of transparency</li> </ul>	<ul style="list-style-type: none"> <li>- 100% of key areas meeting requirements</li> <li>- 100% of key deliverables will be met on time</li> <li>- 90% of sub or supporting areas are performing very well</li> <li>- No safety, security, or quality issues of note</li> <li>- Very high degree of self-identification and reporting deficiencies</li> <li>- Very high degree of transparency</li> <li>- Strong ISMS practices, timely reporting, critiqued/EOC whenever needed</li> </ul>
<b>Light Blue</b> “Very Good” Performance		<ul style="list-style-type: none"> <li>- Objective measures expected to be achieved on time</li> <li>- Very good probability of achieving the outcome</li> <li>- Expect to meet Cost, Scope, and Schedule objectives</li> <li>- High degree of transparency</li> </ul>	<ul style="list-style-type: none"> <li>- 100% of key areas meeting or close to meeting requirements</li> <li>- 100% of key deliverables are meeting or expected to meet requirements</li> <li>- Majority of sub or supporting areas are performing very well</li> <li>- At most minor safety, security, or quality issues of note</li> <li>- High degree of self-identification and reporting deficiencies</li> <li>- High degree of transparency</li> <li>- Strong ISMS practices, timely reporting, critiqued/EOC whenever needed</li> </ul>
<b>Green</b> “Good” Performance		<ul style="list-style-type: none"> <li>- Objective measures reasonably expected to be achieved on time</li> <li>- Reasonable probability of achieving the outcome</li> <li>- Expect to meet or be very close to Cost, Scope, and Schedule</li> <li>- Good degree of transparency</li> </ul>	<ul style="list-style-type: none"> <li>- Almost all key areas meeting or close to meeting requirements</li> <li>- Majority of key deliverables are satisfactory or better</li> <li>- Majority of sub or supporting areas are performing satisfactorily</li> <li>- Mostly minor safety, security, or quality issues of note</li> <li>- Good degree of self-identification and reporting deficiencies</li> <li>- Good degree of transparency</li> <li>- Infrequent deviation in ISMS practices, timely reporting, critiqued/EOC reviews</li> </ul>

<p><b>Yellow</b>                  “Underperforming”                  “Needs improvement”                  “Elevated risk”</p>		<ul style="list-style-type: none"> <li>- Elevated risk of objectives not being achieved on time</li> <li>- Reasonable probability of not achieving the outcome</li> <li>- Expect to not meet Cost, Scope, or Schedule</li> <li>- Partial degree of transparency</li> </ul>	<ul style="list-style-type: none"> <li>- Majority key areas meeting or close to meeting requirements</li> <li>- Notable percentage of key deliverables are satisfactory or better</li> <li>- Notable percentage of sub or supporting areas are performing satisfactorily</li> <li>- Occasional mid-level safety, security, or quality issues of note</li> <li>- ~75% of issues are self-identified with most reporting in a timely manner</li> <li>- Partial degree of transparency</li> <li>- Clear deviations of ISMS practices, reporting, critiques, Extent of Condition reviews, safety basis/CONOPS/Engineering deviations that are generally infrequent or have minor consequences</li> <li>- Nominal NOV, PAAA, Fine, Injury, security infraction(s)</li> </ul>
<p><b>Red</b>                  “Does not meet rqmts”                  “Failing or will fail”</p>		<ul style="list-style-type: none"> <li>- A clear (or high) risk of objectives not being achieved on time</li> <li>- High probability of not achieving the outcome</li> <li>- Expect to not meet or significantly miss Cost, Scope, or Schedule</li> <li>- Inadequate degree of transparency</li> </ul>	<ul style="list-style-type: none"> <li>- Overall most key areas meeting or close to meeting requirements</li> <li>- Inadequate percentage of key deliverables are satisfactory or better</li> <li>- Inadequate percentage of sub or supporting areas are performing satisfactorily</li> <li>- Too high a frequency of mid-level safety, security, or quality issues of note</li> <li>- Major safety, security, or quality issue</li> <li>- Less than ~75% of issues are self-identified and reported in a timely manner</li> <li>- Inadequate degree of transparency</li> <li>- Significant deviations of ISMS practices, reporting, critiques, Extent of Condition reviews, multiple safety basis/CONOPS/Engineering deviations or a significant deviation with nuclear safety or operational implications</li> <li>- Significant NOV, PAAA, Fine, Injury, security deviation(s)</li> </ul>
<p><b>Grey</b>                  “Insufficient data”                  “Not able to assess”</p>		<ul style="list-style-type: none"> <li>- Insufficient data to assess at this time</li> </ul>	<ul style="list-style-type: none"> <li>- Insufficient data to assess at this time</li> <li>- Parties misaligned on the objective</li> </ul>