

# DRAFT

## Project Operating Plan

### BACKGROUND

<b>Recovery Act Project:</b>	Office of River Protection – Accelerate tank farm infrastructure upgrades to support waste feed to the Waste Treatment and Immobilization Plant by 2019
<b>TAFS:</b>	89-0253
<b>Project Identification Code:</b>	2002110
<b>Recovery Act Bill Reference:</b>	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
<b>Project Cost:</b>	\$326M
<b>Budget Authority:</b>	Fund 05949, Control B&R FD0100000
<b>Program Office:</b>	Office of Environmental Management
<b>Recovery Program Plan:</b>	Office of Environmental Management - Defense
<b>Management Office:</b>	Shirley J. Olinger, Manager, Office of River Protection, shirley_j_olinger@orp.doe.gov, 509-372-3062 Stacy Charboneau, Assistant Manager – Tank Farm Project, Office of River Protection, stacy_l_charboneau@orp.doe.gov, 509-373-3841
<b>LEADS:</b>	
<b>Implementation:</b>	Office of River Protection
<b>Breakthrough:</b>	N/A
<b>Laboratory:</b>	N/A

## I. SUMMARY AND OBJECTIVES

### Summary

The original scope and purpose of the existing contract will not change with the addition of the *American Recovery and Reinvestment Act of 2009* (RA) funding. The purpose of this contract remains to accomplish the following:

- Furnish safe, compliant, cost-effective, and energy-efficient services to further the U.S. Department of Energy, Office of River Protection (DOE-ORP) mission to store, retrieve, and treat Hanford tank waste, and store and dispose of treated waste.
- Close the tank farm waste management areas in order to protect the Columbia River.

It remains the tank farm contractor’s responsibility to determine the specific methods and approaches for accomplishing the agreed-upon workscope. The *Tank Operations Contract*

(DE-AC27-08RV14800) (TOC) applies performance-based contracting approaches, thereby expecting the contractor to innovate and implement techniques that maximize performance efficiencies and scope completion.

The RA-funded investment in this project will upgrade the tank farm and support facility infrastructure required to provide the tank waste feed from the tank farms to the Waste Treatment and Immobilization Plant (WTP), which begins hot operations in Fiscal Year (FY) 2019. This project accelerates completion of existing environmental protection and site cleanup, thus immobilizing high-level waste (HLW) at the Hanford Site and mitigating environmental threats to the Columbia River.

The RA-funded workscope ties to the following U.S. Department of Energy (DOE) and DOE Office of Environmental Management (EM) Strategic Goals and Themes:

- *DOE Strategic Goal/Theme 4 – Environmental Responsibility: Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.*
- *DOE Strategic Goal/Theme 5 – Management Excellence: Enabling the Department’s mission through sound management and business practices.*
- *DOE Office of Environmental Management Goals: Safely disposition large volumes of nuclear waste, safeguard materials that could be used in nuclear weapons, and deactivate and decommission thousands of contaminated facilities no longer needed by the Department to carry on its current mission. The DOE Office of Environmental Management is fulfilling its commitments to reduce overall risk and complete cleanup across all sites for generations to come.*

The DOE-ORP is responsible for managing the radioactive mixed waste stored in 177 underground tanks located within 7 miles of the Columbia River. Of these tanks, 149 have a single steel liner inside the concrete tanks and are decades beyond their design life. Many of these tanks have leaked and some of the waste has reached the groundwater, threatening the Columbia River. It is important that the radioactive waste be removed, treated, and stored or disposed in a more secure location before additional leaks occur, and prior to the tanks and infrastructure deteriorating to the point where cost and schedule for cleanup become prohibitive. The waste must be safely stored until it is retrieved. Monitoring, surveillance, and maintenance activities are performed to validate safe storage conditions and tank integrity and to maintain the tank farms infrastructure so that it can be used for future waste retrieval and transfer activities.

The DOE-ORP is divided into two projects, the Radioactive Liquid Tank Waste Stabilization and Disposition Project, ORP-0014 (identified as the Tank Farms Project), and the Waste Treatment and Immobilization Plant Project, ORP-0060. The DOE-ORP manages the radioactive mixed waste stored in Hanford’s underground storage tanks, which includes designing and building systems to retrieve, transfer, treat, immobilize, and dispose of these wastes. The TOC contractor is responsible for the management, storage, transfer, and disposal of the waste. The WTP Project is responsible for the design and construction of plants that will treat and immobilize the tank

waste. Upon completion of the construction and commissioning of the WTP, the TOC contractor will be responsible for operation of the WTP.

When the WTP becomes operational, the tank waste will be pumped via transfer lines to the WTP for treatment and immobilization. The TOC contractor provides waste delivery systems and supporting infrastructure, and includes developing and implementing supplemental treatment methods for some of the non-HLW, thereby reducing the load on the WTP and completing the mission.

The current TOC baseline includes upgrades necessary to support the startup and efficient operations needed for final disposition of waste through the WTP. The RA initiative accelerates these upgrades, which will ensure that mandatory upgrades are completed to support WTP operations.

The RA program's contractual milestones are found in the TOC, Contract Modification 030, which was definitized with DOE-ORP on October 1, 2009, and modified with Contract Modification 042, signed on February 11, 2010

The RA-funded workscope has been organized into analytical building blocks (ABBs) that bin the work into five subprojects. The five RA subprojects are as follows:

- RA-1, Tank Farm Infrastructure Upgrades
- RA-2, Other Infrastructure Upgrades
- RA-3, Facility Upgrades
- RA-4, Waste Feed Infrastructure Upgrades
- RA-5, Waste Feed Transfer Line Upgrades.

Each of these ABBs has specific, defined worksopes as described below:

- RA-1, Tank Farm Infrastructure Upgrades
  - AP/SY ventilation design and fabrication
  - SY electrical upgrades
  - Valve funnel replacements
  - Valve pit jumpers
  - AP level rise construction modifications
  - AZ Farm control system upgrade
  - Other tank/farm upgrades
  - Double-shell tank upgrades and life extension
  - Single-shell tank life extension
  - TY Farm interim barrier construction.
- RA-2, Other Infrastructure Upgrades
  - Wiped Film Evaporator
  - Core sampling system
  - Mobile Arm Retrieval System (MARS) – vacuum system

- 135-ton, all-terrain crane and other support vehicles.
- RA-3, Facilities Upgrades
  - 242-A Evaporator upgrades and life extension
  - 222-S Laboratory instrument upgrades
  - 222-S Laboratory life extension projects
  - 222-S Laboratory upgrades projects
  - Secondary waste form testing.
- RA-4, Waste Feed Infrastructure Upgrades
  - Double-shell tank control systems updates
  - Exhauster deactivation and decommissioning (D&D) (AW/AN Farms)
  - AZ-1 Condensate Line upgrade
  - AW cleanout box isolation and removal
  - Complete mixer pump design
  - Tank waste mixing demonstrations
  - AW D&D (Standard Hydrogen Monitoring Systems [SHMSs]) and Gas Characterization Systems [GCSs])
  - SY-102 D&D (SHMSs and GCSs).
- RA-5, Waste Feed Transfer Line Upgrades
  - Transfer line upgrades to SL-177/SN-277 and SL-180/SN-280
  - Transfer line upgrades to SN-278/SN-279 and SN-285/SN-286.

Utilizing the ABB structure, key performance parameters (KPPs) have been developed to assign unit values to the RA work items, and a spreadsheet created. The KPP Spreadsheet provides the detailed version of the ABBs and the unit values. The KPP Spreadsheet is a living document, which is continually updated to reflect RA work progress, and is maintained through configuration control processes.

Performance-based incentive (PBI) fee for completion of RA workscope may be earned with the completion of KPPs and with the preparation and issuance of designated RA program reports by the TOC. The fee structure is terminal, ending on September 30, 2011, for the KPP scope and is the straight-line method for RA program reporting.

The PBI fee payment schedule is quarterly, with fee based on the TOC submission of a milestone completion document for each of the performance measure/metric quantity(s) (i.e., KPPs) completed and the submittal of the weekly, monthly and quarterly reports for the period. These documents will be submitted by the TOC for review and approval by the DOE-ORP.

## **Public Benefits**

This project accelerates completion of the existing environmental protection and site cleanup goal of immobilizing HLW at the Hanford Site, which mitigates environmental threats to the Columbia River. This will create jobs for the existing skilled workforce available in the Northwest to immediately execute this project.

## **RA Project Impacts**

Investment in this project will upgrade the tank farms and support facility infrastructure necessary to provide the tank waste feed from the tank farms to the WTP, which is scheduled to begin hot operations in FY 2019.

The RA-funded workscope can be characterized as a “green initiative” in multiple ways. The workscope fulfills the Government’s responsibility to address nuclear weapons waste, supports completion of legal compliance agreement milestones, and enables reuse of Departmental facilities for other energy missions or community reuse. Moreover, EM sites can be used to establish energy parks once they are cleaned up, ensure long-term mission at environmental cleanup sites, and provide long-term quality jobs across a wide range of skills.

## **Workscope Classified as Buy-Back**

If cost efficiencies are realized in executing the current workscope, additional workscope is staged for inclusion in the RA project. Schedule and cost considerations were considered for the new projects to maximize the probability of success in executing the buy-back scope. It is imperative that a buy-back project’s schedule and cost profile comply with the requirements for executing RA projects by DOE-ORP (i.e., the project shall be completed by September 30, 2011, and within the allocated \$326 million). A list of the identified buy-back projects is provided below:

- Ultrasonic Testing and Corrosion Monitoring of Double-Shell Tanks (DSTs)
- DST Farm Infrastructure
- 222-S Laboratory Analytical and Infrastructure
- 242-A Evaporator Upgrades
- SX Farm Barrier Design
- Tank Farm Equipment Procurements
- Secondary Waste Testing
- 616 Building Upgrades
- SX/S Farm Equipment D&D
- DST Transfer System/Pit Integrity Assessments
- Waste Transfer Line Non-Destructive Testing and Examination
- ENRAFs/Densitometers.

## II. COST AND SCHEDULE

### Budget

**Table 2a. Budget Implementation Monthly and Yearly Obligations (\$M).**

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1		
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Office of River Protection - Accelerate Tank Farm Infrastructure Upgrades to Support Waste Feed to the Waste Treatment and Immobilization Plant by 2019	42.5	0.1	191.7	0.0	0.0	91.7	0.0	0.0	0.0
	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	FY 2012		FY2013		FY 2014		FY2015		
	0		0		0		0		

FY = fiscal year

**Table 2b. Budget Implementation Monthly and Yearly Expenditures (\$M).**

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1		
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Office of River Protection - Accelerate Tank Farm Infrastructure Upgrades to Support Waste Feed to the Waste Treatment and Immobilization Plant by 2019	0.6	2.0	2.9	4.5	6.0	12.3	3.7	7.3	5.5
	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
	6.9	10.6	10.8	12.9	11.0	12.3	15.4	14.0	23.3
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept		
	11.7	14.5	17.0	13.2	13.3	16.8	77.4		
	FY 2012		FY2013		FY 2014		FY2015		
	0		0		0		0		

FY = fiscal year

**NOTE:** The above obligations and expenditures were definitized with the TOC on October 1, 2009, and are current as of month end March, 2010.

### Indirect Costs

In accordance with the TOC, all costs are directly tied to the project. Section 4.2.0 of the TOC, states that “G&S [General and Administrative Service] is not distributed to Tank Farm Contractor expense-funded activities because G&S costs are direct charged to expense funds.” Further, there are indirect costs associated with functional area staff required to support the RA-funded workscope.

## Changes to Baseline Budget

RA projects involve accelerating existing projects and result in changes to the baseline budgets in the long term. The tank farm work that was originally scheduled to take place in 2011 and beyond will now be completed during FY 2009 – 2011 through the utilization of RA funds. The DOE-ORP’s RA-funded projects involve accelerating existing projects. Potential out-year savings are the result of accelerating upgrades to the single-shell tank infrastructure and waste feed delivery activities, originally scheduled to take place in 2012 and beyond, that are now to be completed during FY 2010 and FY 2011 through utilization of RA funds. These cost savings are estimated to be approximately \$30M.

## Capital Asset Projects

The RA workscope for RA-5, “Waste Feed Transfer Lines Upgrades,” is managed as a capital asset project in accordance with DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*. The scope of the various RA subprojects will be screened using Table 8-1 of DOE-STD-1189, *Integration of Safety into the Design Process*. Results of the screening will be used to determine if planned RA subproject activities constitute major modifications.

**Table 5. Delivery Schedule for Capital Asset Projects.**

RA-5 Waste Transfer Line Upgrades		
Program/OECM Milestone	Delivery (End) Date	Comments
RA-5 Waste Feed Transfer Line Upgrades – SL-177/SN-277 and SL-180/SN-280	August 31, 2011	Final completion end point is construction completion.
RA-5 Waste Feed Transfer Line Upgrades – SL-278/SN-279 and SL-285/SN-286	September 30, 2011	Final completion end point is construction completion.

OECM = Office of Engineering and Construction Management

## Milestones

The project and subproject milestones in Table 6 are based on contract definitization that occurred between the DOE-ORP and Washington River Protection Solutions LLC (WRPS) on October 1, 2009, and Contract Modification No. 042 signed on February 11, 2010. Because the RA-funded workscope is integrated into the River Protection Project baseline, but tracked and reported separately and uniquely, the internal DOE-approved change control process will be applied.

Table 6 aligns the project and subproject milestones and performance measures quarterly for FY 2009, FY 2010, and FY 2011. The ABB numbering structure of RA-1 through RA-5 is utilized in Table 6.

**Table 6. Project Performance Targets. (5 Pages)**

Recovery Act Project Identification Code	2002110
Linkage to S-1 Priorities	National Security and Legacy – Accelerates readiness to safely transfer wastes for treatment and disposal.
Linkage to Current Program Goal (if applicable)	To safely disposition large volumes of nuclear waste and safeguard materials that could be used in nuclear weapons, EM is fulfilling its commitments to reduce overall risk and complete cleanup across all sites for generations to come.
Three-Year Outcome-Oriented Performance Measure	Complete project planning and design for tank farm RA Projects to support waste feed to the WTP. Complete installation and acceptance of tank farm facility, systems, and equipment upgrades.
First-Year Performance Target (FY 2009)	Project planning on RA projects, RA resource mobilization; initiate project design work, initiate procurement activities for tank/tank farm equipment upgrades.
Q3 – Project-Level Quarterly Performance Milestone(s)	<i>The Vulnerability Assessment and Risk Mitigation Plan for American Recovery and Reinvestment Act Funding Work Scope for the Office of River Protection (ORP); DOE-ORP Project Operating Plan; TFC-PLN-39, “Risk Management Plan,” revised to incorporate 180-day risk analysis; Recovery Act 180-Day Work Plan for the Tank Operations Contract; RPP-PLAN-40856, Recovery Act Project Execution Plan for Tank Farm Contractor; Recovery Act Requirements Matrix; Jobs Created/Jobs Retained Tracking System May-2009.</i>
Q4 – Project-Level Quarterly Performance Milestone(s)	<p>RA-1.7 Ventilation System Reliability Study Sep-2009.</p> <p>RA-1.7 Removal of Tank Farm Equipment and Facilities That Are Out of Service Sep-2009.</p> <p>RA-3.1 242-A Evaporator Compressors Sep-2009.</p> <p>RA-3.2 SOWs Complete for Priority Instruments Sep-2009.</p> <p>RA-3.2 222-S Laboratory Upgrade Stairway Access Sep-2009.</p> <p>RA-3.2 222-S Laboratory Increase HLAN Speed Sep-2009.</p> <p>RA-3.2 222-S Laboratory Access to Fan Deck Upgrade Sep-2009.</p> <p>RA-3.2 Demolish MO-924 Sep-2009.</p>
Second-Year Performance Target (FY 2010)	Execution of project design work, execution of procurement activities for tank and tank farm equipment upgrades (e.g., long-lead procurements for pumps, exhausters, etc.), and equipment installation and testing.

**Table 6. Project Performance Targets. (5 Pages)**

<p>Q1 – Project-Level Quarterly Performance Milestone(s)</p>	<p>TOC’s RA Performance Measurement Baseline, DOE-ORP’s approval of TOC’s Certified Cost and Pricing Proposal for RA Workslope Oct-2009.</p> <p>RA-1.7 NEC Resolution and Electrical Modifications Nov-2009.</p> <p>RA-1.7 Replace 10 Drain Seals in DST Valve/Pump Boxes Nov-2009.</p> <p>RA-1.3 Valve Funnel Replacement SOW Complete Dec-2009.</p> <p>RA-3.1 Decontaminate Condenser Room Dec-2009.</p> <p>RA-4.2 Exhauster D&amp;D SOW Complete Dec-2009.</p> <p>RA-4.7 Complete Mixer Pump Procurement Specification Update Dec-2009.</p> <p>RA-5.1 90% Design Complete for Transfer Line Upgrades – SL-177/SN-277 and SL-180/SN-280 Dec-2009.</p>
<p>Q2 – Project-Level Quarterly Performance Milestone(s)</p>	<p>RA-3.1 242-A Raw Water Service Building Upgrade Feb-2010.</p> <p>RA-5.2 90% Design Complete for Transfer Line Upgrades – SN-278/SN-279 and SN-285/SN-286 Mar-2010.</p>
<p>Q3 – Project-Level Quarterly Performance Milestone(s)</p>	<p>RA-2.4 135 Ton All-Terrain Crane Procurement and Other Support Vehicles Jul 2010.</p>
<p>Q4 – Project-Level Quarterly Performance Milestone(s)</p>	<p>RA-3.2 Back-Up Compressed Air System Jul-2010.</p> <p>RA-1.7 Decon Trailer Procurement Sep-2010.</p> <p>RA-2.1 Wiped Film Evaporator Small-Scale Demonstration Sep-2010.</p> <p>RA-3.1 Process Condensate Leak Detection Upgrades Sep-2010.</p> <p>RA-3.2 Replace HPT Support Facilities in 222-S Laboratory Sep-2010.</p> <p>RA-4.8 Complete Small-Scale Mixing Demonstration and Submit Draft Report Sep-2010.</p> <p>RA-4.9 AW D&amp;D (SHMS-GCS Removal) Sep-2010.</p> <p>RA-4.10 SY-102 D&amp;D (SHMS/GCS Removal) Sep-2010.</p>

**Table 6. Project Performance Targets. (5 Pages)**

<p>Third-Year Performance Target (FY 2011)</p>	<p>Complete installation and testing for DST level rise modifications; install condensate line between the AZ-301 Condensate Receiver Tank and tank 241-AZ-101; complete D&amp;D of AW and AN Farm exhausters; deactivation, isolation, and removal of three COBs from AW Tank Farm; installation of transfer piping in SY Tank Farm (SL-177/SN-277, SL-180/SN-280, SN-278/SN-279 and SN-285/SN-286 Transfer Line Upgrade); full-scale demonstration of the Wiped Film Evaporator System; core sampling system received; complete installation and testing of SY ventilation, 702 Micon Control System, electrical upgrades in tank farm SY; complete fabrication and installation of 48 valve funnels and valve pit jumpers; and complete and install instrument upgrades in 222-S Laboratory and 242-A Evaporator.</p>
<p>Q1 – Project-Level Quarterly Performance Milestone(s)</p>	<p>RA-1.5 AP Level Rise Construction Modifications Complete Oct-2010.  RA-1.8 Fabricate and install AN-107 Corrosion Probe Oct-2010.  RA-1.8 Issue DSTIP Lab Report Dec-2010.  RA-3.1 Asbestos Abatement Complete in 242-A Oct-2010.  RA-3.2 222-S Laboratory Conditioned Storage Addition Oct-2010.  RA-3.2 Roof Replacement in 222-S Laboratory Nov-2010.  RA-3.1 Replace Instruments in 242-A Evaporator Dec-2010.</p>
<p>Q2 – Project-Level Quarterly Performance Milestone(s)</p>	<p>RA-4.8 Complete Test Loop Demonstration and Submit Draft Report Jan-2011.  RA-4.5 AZ Condensate Line Upgrade Complete Feb-2011.  RA-3.1 Refurbish Pump PB-1 Mar-2011.  RA-4.7 Mixer Pump Design Complete Mar-2011.</p>
<p>Q3 – Project-Level Quarterly Performance Milestone(s)</p>	<p>RA-4.2 Exhauster D&amp;D (AW/AN) Removal Complete Apr-2011.  RA-4.6 AW COB Isolation and Removal May-2011.  RA-3.2 Update PAX System in 222-S Laboratory Jun-2011.  RA-4.8 Complete Small-Scale Sampling Demonstration and Submit Draft Report Jun-2011.</p>

**Table 6. Project Performance Targets. (5 Pages)**

<p>Q4 – Project-Level Quarterly Performance Milestone(s)</p>	<p>RA-3.2 As-Built Electrical Drawings Jul-2011.  RA-1.6 AZ Farm Control System Upgrade Complete Jul-2011.  RA-1.7 ENRAF® Upgrades Complete Aug-2011.  RA-1.9 Replace Radial Filters Aug-2011.  RA-1.9 Remove Obsolete SST Equipment Aug-2011.  RA-1.9 Complete SST Electrical System Upgrades Aug-2011.  RA-3.2 Replace Mobile Office Aug-2011.  RA-5.1 Transfer Line Upgrades – SN-177/SN-277 and SL-180/SN-280 Aug-2011.  RA-1.1 AP/SY Ventilation Design and Fabrication Sep-2011.  RA-1.2 SY Electrical Upgrades Complete Sep-2011.  RA-1.3 Valve Funnel Replacement – Installation Complete Sep-2011.  RA-1.4 AP Valve Pit Jumpers – Installation Complete Sep-2011.  RA-1.7 Obsolete Tank Farm Equipment Removal Sep-2011.  RA-1.8 Cathodic Protection Modifications/Adjustments Complete Sep-2011.  RA-1.8 AW-104 Corrosion Probe Installation Complete Sep-2010.  RA-1.10TY Interim Barrier System Installation Complete Sep-2010.  RA-2.1 Full-Scale Demonstration of Wiped Film Evaporator Complete Sep-2011.  RA-2.2 Core Sampling System Received Sep-2011.  RA-2.3 Integrated Testing MARS Vacuum System Complete Sep-2011.  RA-3.1 Electrical Panel Replacement/Repair Sep-2011.  RA-3.1 Install Exhaust Skid Sep-2011.  RA-3.2 Replace HVAC Control System in 222-S Laboratory Sep-2011.  RA-3.2 Renovate Rooms in 222-S Laboratory Sep-2011.  RA-3.2 Upgrade HVAC System to Electrical Heat in 222-S Laboratory Sep-2011.  RA.2-3 Room HVAC Upgrades in 222-S Laboratory Sep-2011.</p>
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**Table 6. Project Performance Targets. (5 Pages)**

<p>Q4 – Project-Level Quarterly Performance Milestone(s) (Cont.)</p>	<p>RA-3.2 222-S Laboratory Lighting Upgrades Sep-2011.  RA-3.3 Test Glass Formulations for Technetium Retention Sep-2011.  RA-3.3 Short-Term Leaching Tests of Grout Formulations to Solidify ETF Waste Streams Sep-2011.  RA-4.1 DST Control Systems Update Sep-2011.  RA-4 Strategic Planning – Process Control Flow Sheet Complete for First 3 WTP Feed Tanks Sep-2011.  RA-4 Pre-Design/Design Activities for WFD Complete Sep-2011.  RA-5.2 Transfer Line Upgrades Complete – SN-278/SN-279 and SN-285/SN-286 Sep-2011.</p>
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COB = cleanout box	HVAC = heating, ventilation, and air conditioning
D&D = deactivation and decommissioning	NEC = National Electrical Code
DST = double-shell tank	RA = <i>American Recovery and Reinvestment Act of 2009</i>
DOE-ORP = U.S. Department of Energy, Office of River Protection	RAMI = reliability, availability, maintainability, inspectability
DSTIP = double-shell tank integrity program	SHMS = Standard Hydrogen Monitoring System
EM = U.S. Department of Energy, Office of Environmental Management	SOW = statement of work
ETF = Effluent Treatment Facility	SST = single-shell tank
FY = fiscal year	TOC = <i>Tank Operations Contract</i>
GCS = Gas Characterization System	WFD = waste feed delivery
HLAN = Hanford Local Area Network	WTP = Waste Treatment and Immobilization Plant
HPT = health physics technician	

### III. MANAGEMENT

#### Secretarial-Level Items

The initiatives outlined in this plan support the following Secretary of Energy’s priorities:

- Economic Prosperity: Job Creation
- National Security and Legacy: Accelerated Cleanup of Legacy Wastes.

**Table 8. Secretary's Priorities.**

Secretary’s Priorities	Project Impacts (Qualitative)	Project Impacts (Quantitative)
Economic Prosperity	Improves economic conditions in Tri-Cities, Eastern Washington, and Pacific Northwest	Create and/or retain several jobs
National Security and Legacy	Accelerates readiness to safely transfer wastes for treatment and disposal	Two-year acceleration of projects required to support waste transfers

## Collaboration and Coordination

The RA-funded projects require collaborative efforts with both internal and external entities. Internal coordination efforts are demonstrated in the development of an Integrated Project Team (IPT) that consists of several functional managers (i.e., RA Program manager, Waste Treatment and Immobilization Plant manager, Project Controls manager, Work Force/Human Resource manager, Business Operations/Procurement manager, Project Integration manager, Project Integration/Construction and Commissioning manager, Environmental manager, Communications/External Affairs manager, etc.) or their functional area points of contact. The purpose of the IPT is to ensure that appropriate levels of functional support are provided to the RA-funded projects workscope. The IPT meets on a periodic basis to share and exchange information and to provide status updates of RA work.

Several examples of external interactions exist, including efforts with national laboratories, federal agencies, and universities. For example, the Facility Upgrades (RA-3) is a collaboration of the Pacific Northwest National Laboratory (PNNL), Catholic University of America, and the Savannah River Site (SRS) in developing, testing, and qualifying appropriate waste forms for the secondary waste streams that are projected to be produced by the WTP.

Similarly, the Tank Waste Mixing for Sampling Demonstration (RA-4) will require DOE-ORP/WRPS to enter into collaborative relationships with PNNL and SRS to determine the adequacy of mixing required to provide homogeneous feed to the WTP.

Additionally, there are several other external interfaces associated with RA workscope, including:

- **Regulatory:** U.S. Environmental Protection Agency, Washington State Department of Ecology, Washington State Department of Health, and the Defense Nuclear Facilities Safety Board
- **Community:** Hanford Advisory Board
- **Industry:** WRPS subcontractors and local small businesses
- **Other:** Labor Unions, parent companies of URS and EnergySolutions, and other site DOE contractors.

## Federal Infrastructure Investments

The investment ultimately supports the President's "green initiative" goal by accelerating the mandatory upgrades that will support the efficient operation of the WTP.

## Line Management

The DOE-ORP has implemented an Integrated Safety Management System approach to ensure that work is performed safely and efficiently. This approach is formalized and discussed in ORP M 450.4, *Integrated Safety Management System Description*, and MGT-PM-PL-01, *River*

*Protection Project – Project Execution Plan*, by using management systems to execute the guiding DOE principles and core safety management functions to protect the public, the workers, and the environment.

MGT-PM-PL-01 describes how the DOE-ORP manages the River Protection Project, including its approach and expectations in accordance with DOE O 413.3A. These processes and procedures, along with MGT-PM-IP-01, “ORP Management System Work Process Control,” provide the foundation for ensuring that the accountability and transparency of RA activities will be maintained.

Additionally, the DOE-ORP and its contractors and subcontractors are responsible and accountable for efficient and effective use of government funds, including those appropriated through the RA. This accountability and responsibility includes, but is not limited to, conducting regularly scheduled management review meetings, providing regular project status and financial reporting, and monitoring accomplishments through metrics and performance analysis, augmenting the RA transparency and reporting requirements.

Each entity is responsible for reviewing, analyzing, and self-assuring their own processes and use of funds to ensure that reported data are accurate and reliable and that critical milestones are achieved. The DOE-ORP takes the responsibilities associated with management of RA funding seriously; therefore, independent assessments will be scheduled, performed, reported, and monitored to ensure that the goals and objectives established through the RA are met.

## **Needs from Staff Offices**

### **Human Capital**

The DOE-ORP has a federal project director, a deputy federal project director, and project controls/cost estimator directly supporting and hired through RA funds.

The DOE-ORP intends to use support service contractors to provide limited augmentation to this federal staff in the areas of Acceptance Inspectors/Construction Managers, Nuclear Safety, Fire Protection, Environmental Specialists, and Engineers.

### **Procurement**

The TOC and the DOE-ORP office are fully operational. Interface agreements are also in place between the DOE, Richland Operations Office; DOE-ORP; and Hanford prime contractors for shared services.

The original scope and purpose of the TOC will not change with the addition of the RA stimulus funds. The purpose of the TOC remains to furnish safe, compliant, cost-effective, and energy-efficient services to further the DOE-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. The TOC contractor has the responsibility for determining the specific methods and approaches for accomplishing all work. The TOC applies performance-based contracting approaches and expects the TOC contractor to innovate and

implement techniques that maximize performance efficiencies and scope completion and minimize the divergences of how to accomplish the scope of work. The intent of the pending RA modification is to provide additional funding to meet the original contract funding profile and accelerate work that was contemplated in the five-year base period (FY 2009 – FY 2013) and the three-year first-option period (FY 2014 – FY 2016).

**Table 10. Procurement Plans.**

<b>Activity</b>	<b>Type</b>	<b>New/Exist (N/E)</b>	<b>Changes(E), Needs(N)</b>	<b>Status</b>	<b>Expected Complete</b>	<b>Issues (Y/N)</b>
TOC	Contract	Exist	Contract Modification	Pending	No later than May 31, 2010	N

TOC = *Tank Operations Contract*

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## ACRONYMS

ABB	analytical building block
D&D	deactivation and decommissioning
DOE	U.S. Department of Energy
DOE-ORP	U.S. Department of Energy, Office of River Protection
FY	fiscal year
GCS	Gas Characterization System
HLW	high-level waste
IPT	Integrated Project Team
KPP	key performance parameters
PNNL	Pacific Northwest National Laboratory
RA	<i>American Recovery and Reinvestment Act of 2009</i>
SHMS	Standard Hydrogen Monitoring System
SRS	Savannah River Site
TOC	<i>Tank Operations Contract</i>
WRPS	Washington River Protection Solutions LLC
WTP	Waste Treatment and Immobilization Plant