



UNITED STATES DEPARTMENT OF ENERGY

OFFICE OF RIVER PROTECTION

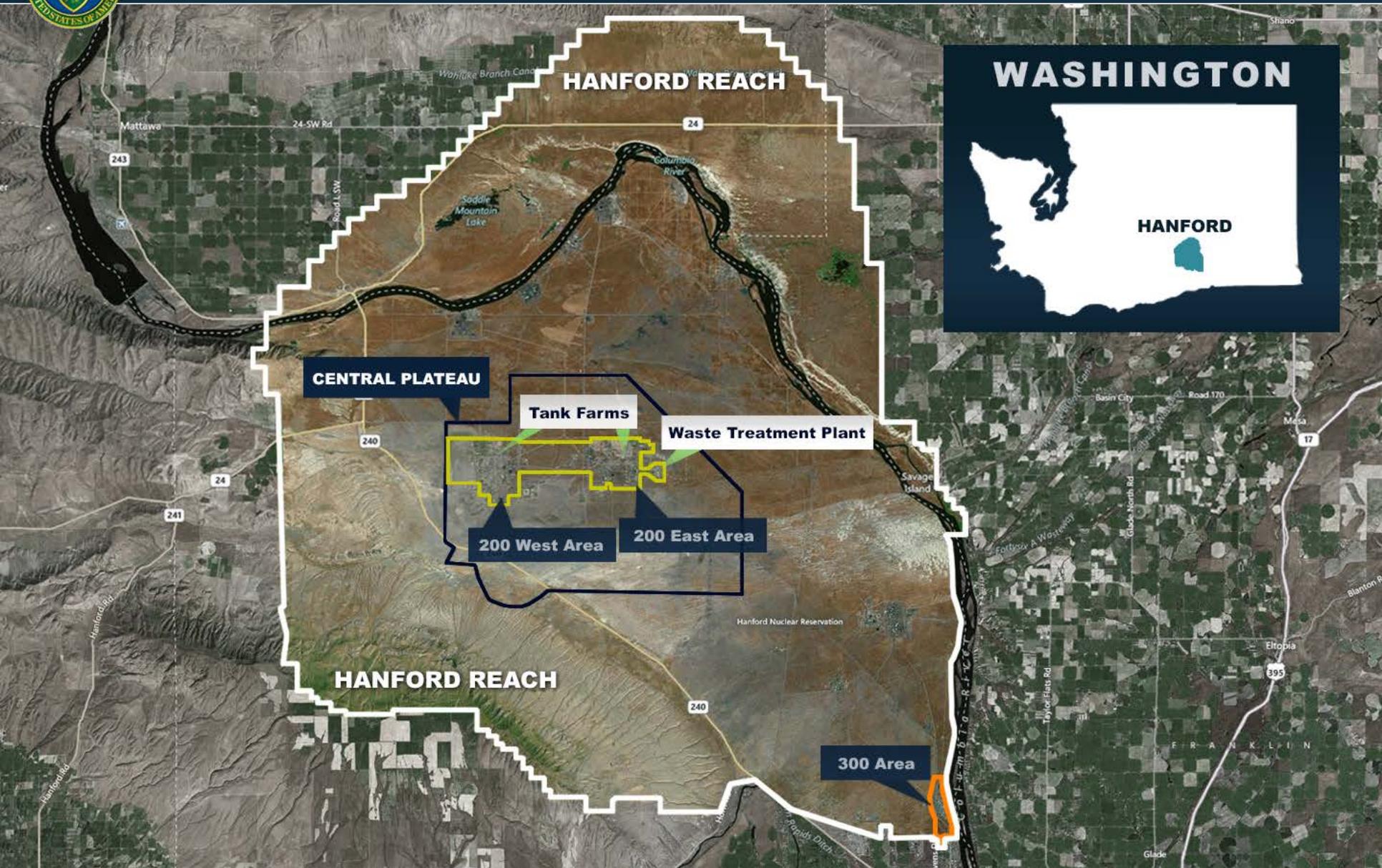
Hanford Advisory Board Agency Update

Kevin Smith, Manager

Wednesday, December 11, 2013



Mission: Safely manage Hanford's 56 million gallons of liquid radioactive tank waste, while designing, constructing, commissioning and operating the Waste Treatment Plant until the mission is complete.





Integrated Path to Mission Completion



200 WEST AREA

S, SX, SY Farms

TX, TY Farms

T Farm

U Farm

B, BX, BY Farms

200 EAST AREA

AY, AZ Farms

C Farm

AW, AP Farms

A, AX Farms

AN Farm

WASTE TREATMENT PLANT



Our Team

Office of River Protection (ORP)

ORP is responsible for planning, integrating, and managing the River Protection Program executed by contractors performing work under ORP overall management. ORP has 188 employees, both Federal and contractor.

Washington River Protection Solutions (WRPS)

WRPS is the prime contractor responsible for safely managing and operating the Tank Farms. WRPS has 1,557 employees*.

Bechtel National, Inc. (BNI)

BNI is responsible for the engineering and construction of the Waste Treatment Plant. BNI has 2,271 employees*.

Advanced Technology and Laboratories International (ATL)

ATL is the prime contractor responsible for managing the 222-S Laboratory. ATL has 73 employees*.



*As of Sept. 30, 2013



ORP – We Are Part of the Community Too



U.S. Department of Energy
Office of River Protection





ORP's Community Impact

Waste Treatment Plant Project

- \$2.21 billion spent on subcontracts and services
 - \$705 million to local businesses
 - \$1 billion to Washington and Oregon businesses
 - \$938 million to small businesses

Supporting advanced education programs

- Welding program at CBC
- Donation of technology building to WSU
- College internships

Support and leadership to local agencies including:

- United Way
- Junior Achievement
- March of Dimes
- TRIDEC
- Boys and Girls Club
- Reading Foundation
- Chaplaincy
- Second Harvest Food Bank
- Habitat for Humanity
- Columbia Basin Community College
- Tri-Cities Visitor and Convention Bureau

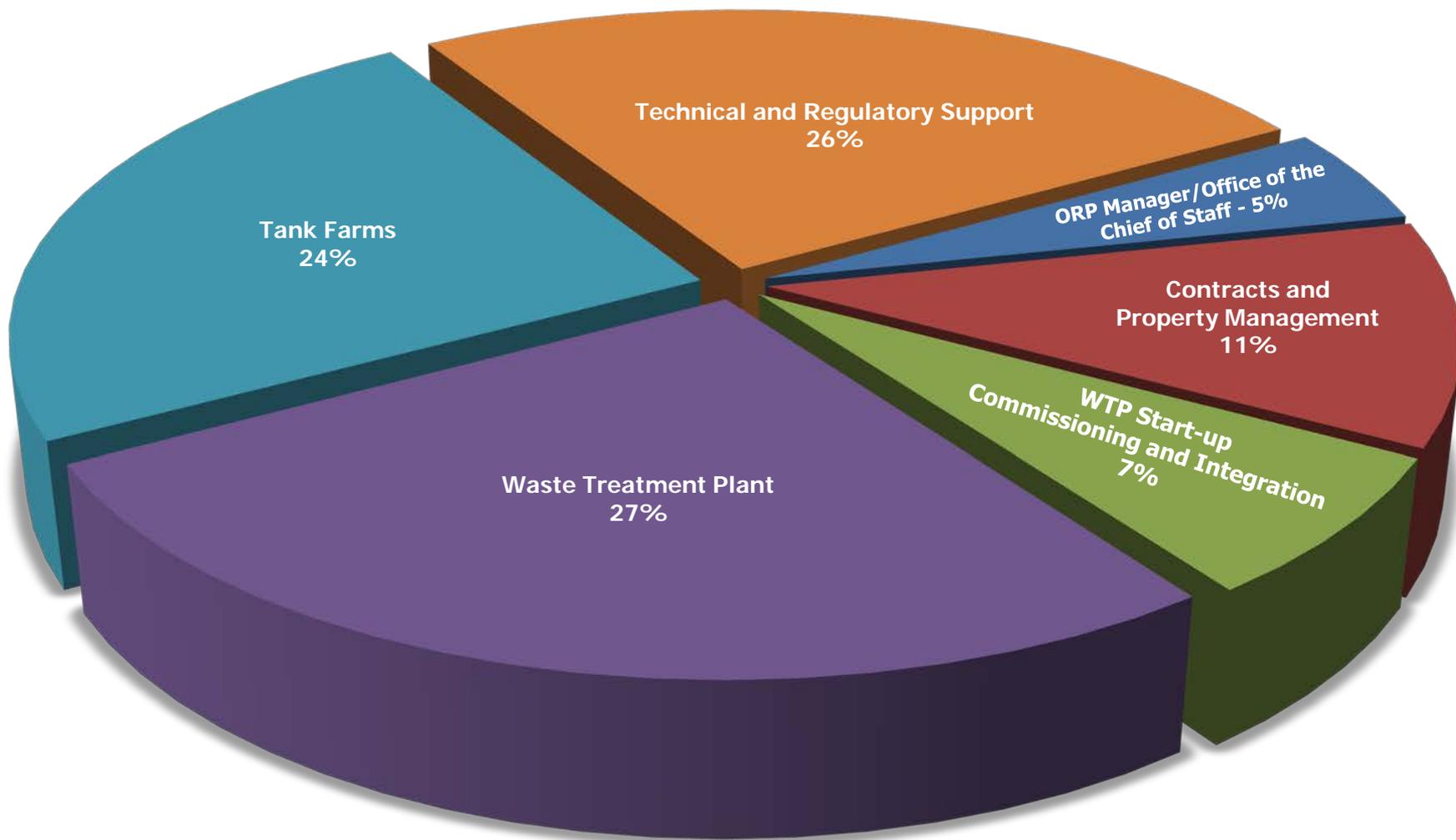
Tank Farms Project

- \$93.2 million spent on subcontracts and services
 - \$72.2 million to regional businesses





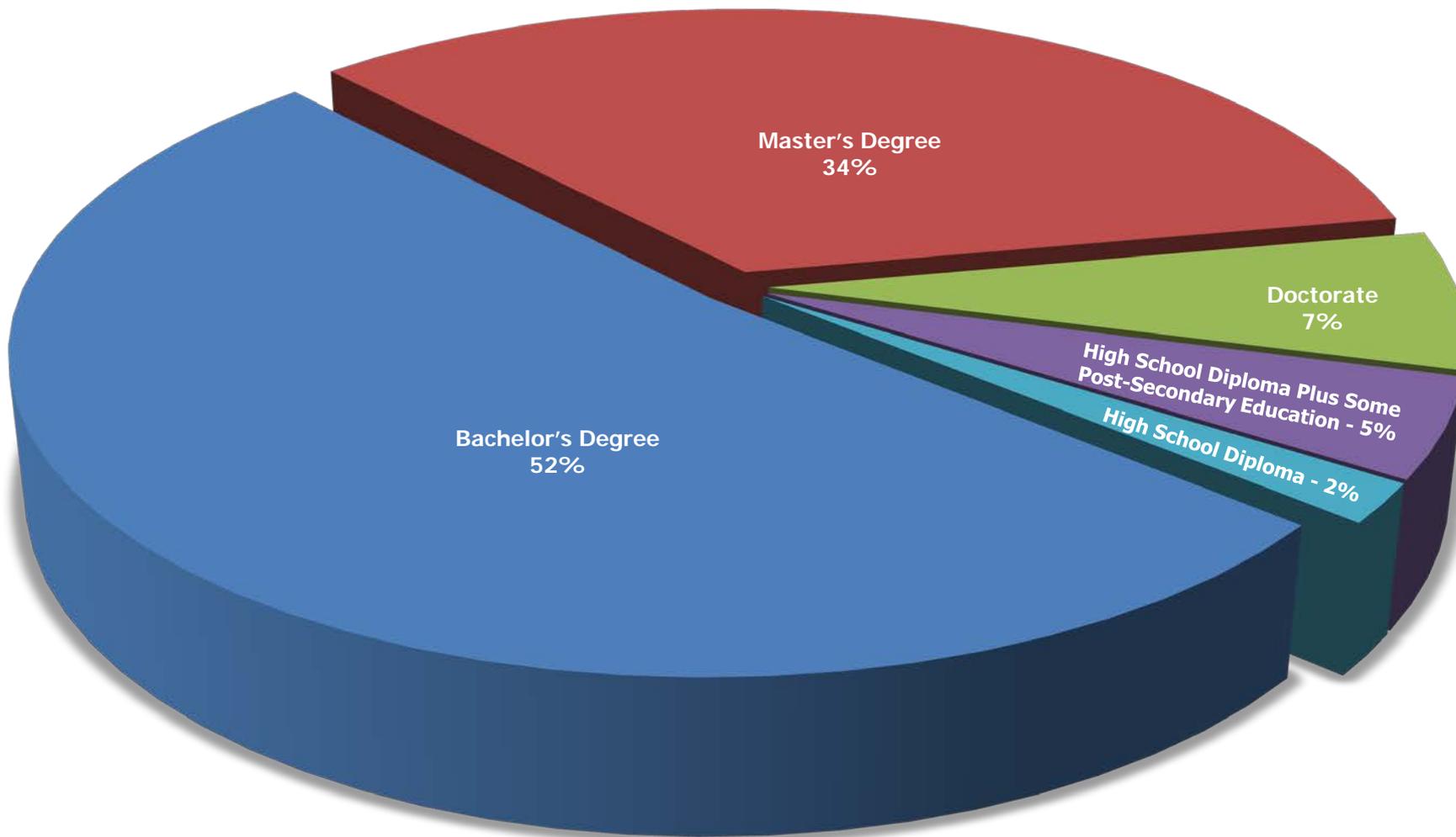
ORP Demographics: Organization



Percentage of workforce by organization



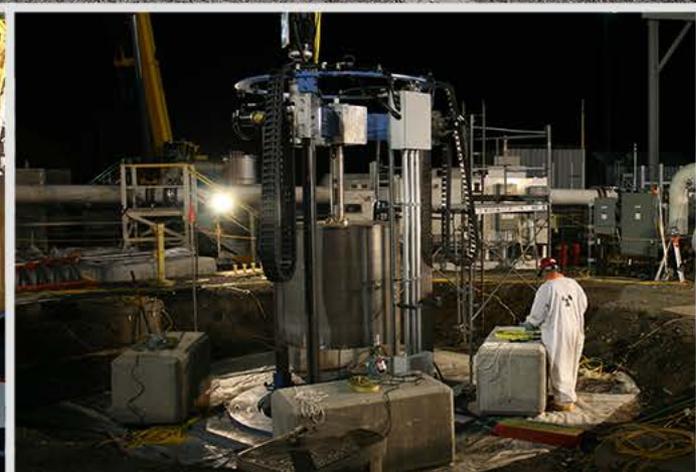
ORP Demographics: Workforce by Education



Percentage of workforce by level of education



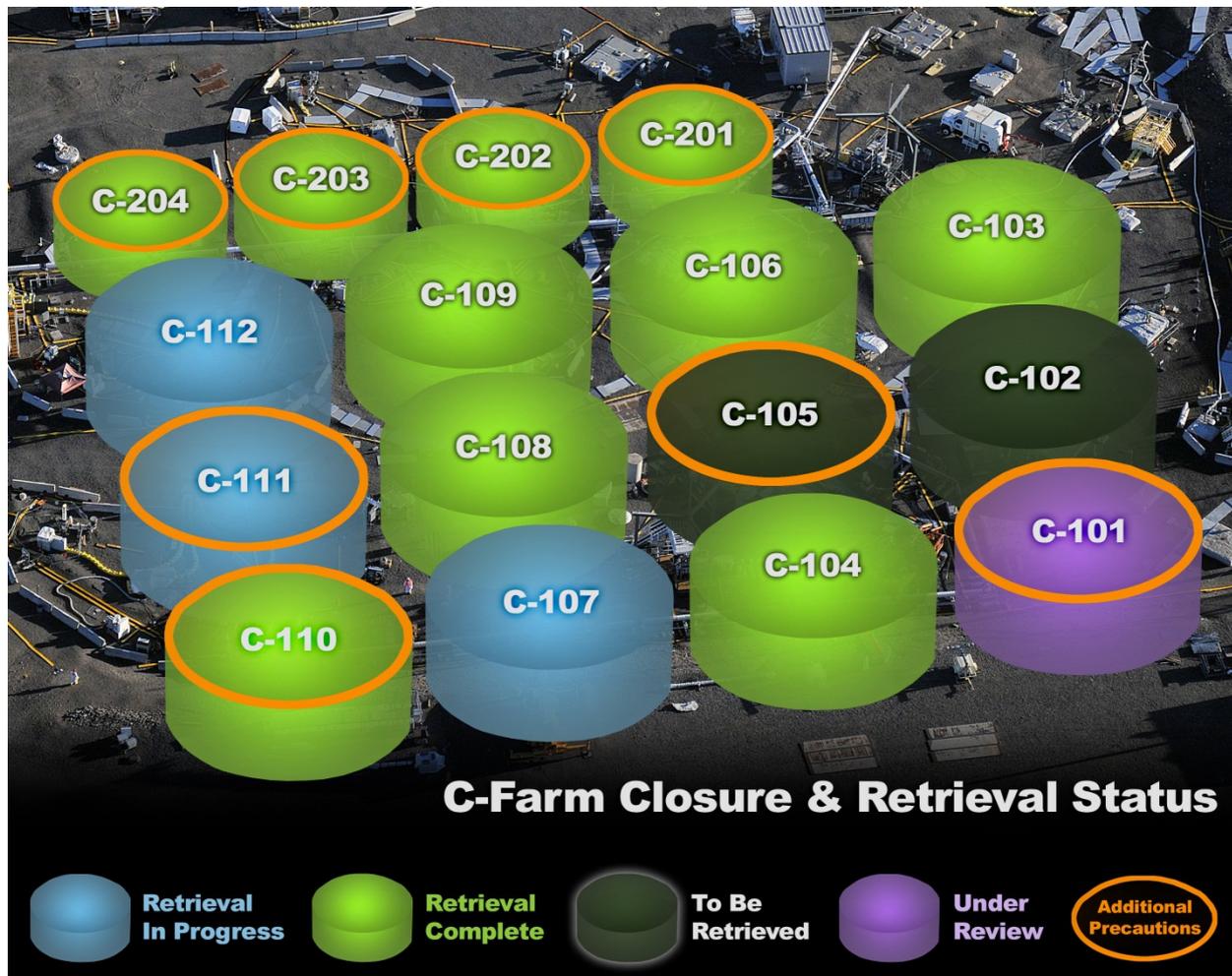
Tank Farms Update





Single-Shell Tank Waste Retrieval Status

- Consent Decree milestone requires DOE to retrieve final 10 C-Farm tanks by Fiscal Year (FY) 2014
- To date, 10 of the 16 tanks in C-Farm have been retrieved to regulatory standards
- Six tanks have been retrieved under the Tri-Party Agreement
- Four Consent Decree tanks have been retrieved to date
- One tank has been retrieved in S-Farm

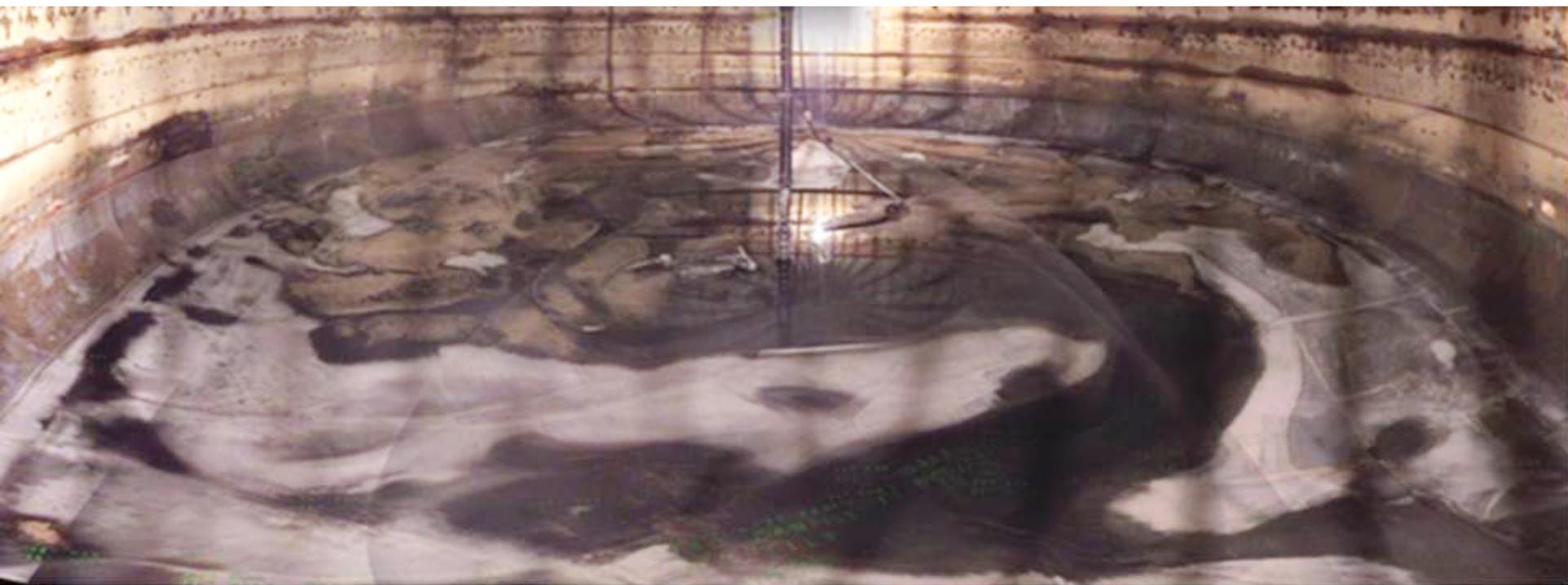


Aerial photograph of C-Farm with graphical overlay that depicts current status of each single-shell tank



Tank Farms Progress

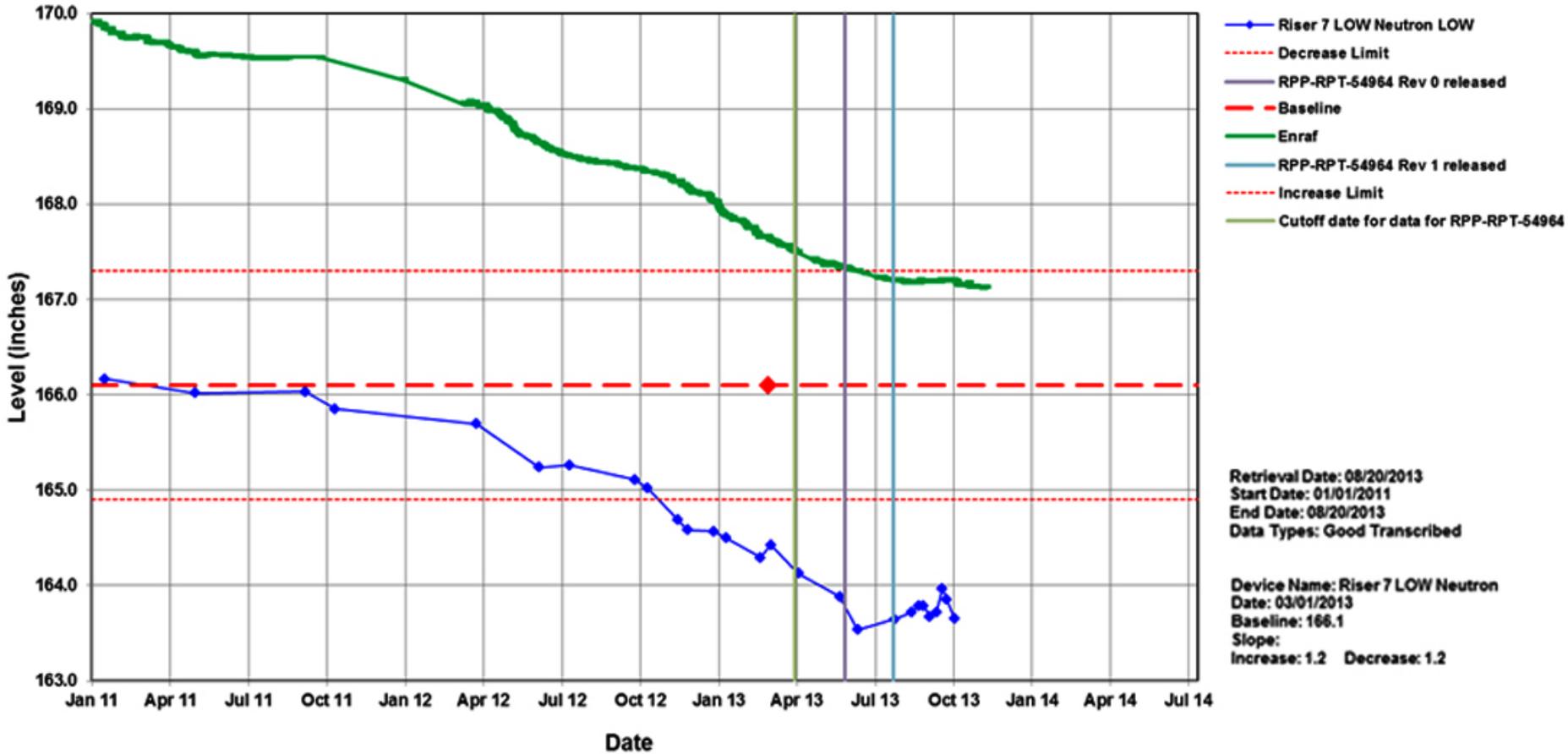
- 10 tanks retrieved with C-110 the most recent
- C-101 is under review
- 3 tanks in retrieval, C-107, C-111 and C-112
- C-102 tank is in readiness
- C-105 tank is in construction





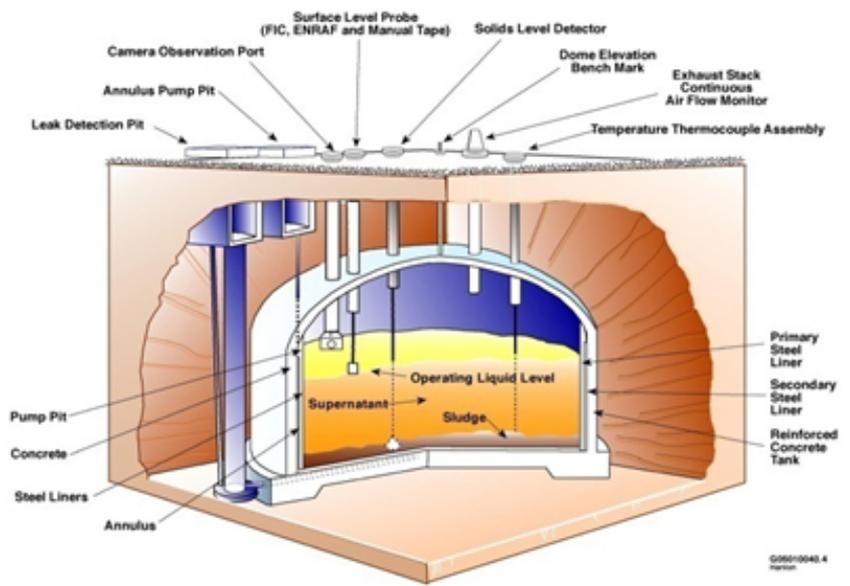
T-111 Liquid Level Trending

STRUCTURE T-111

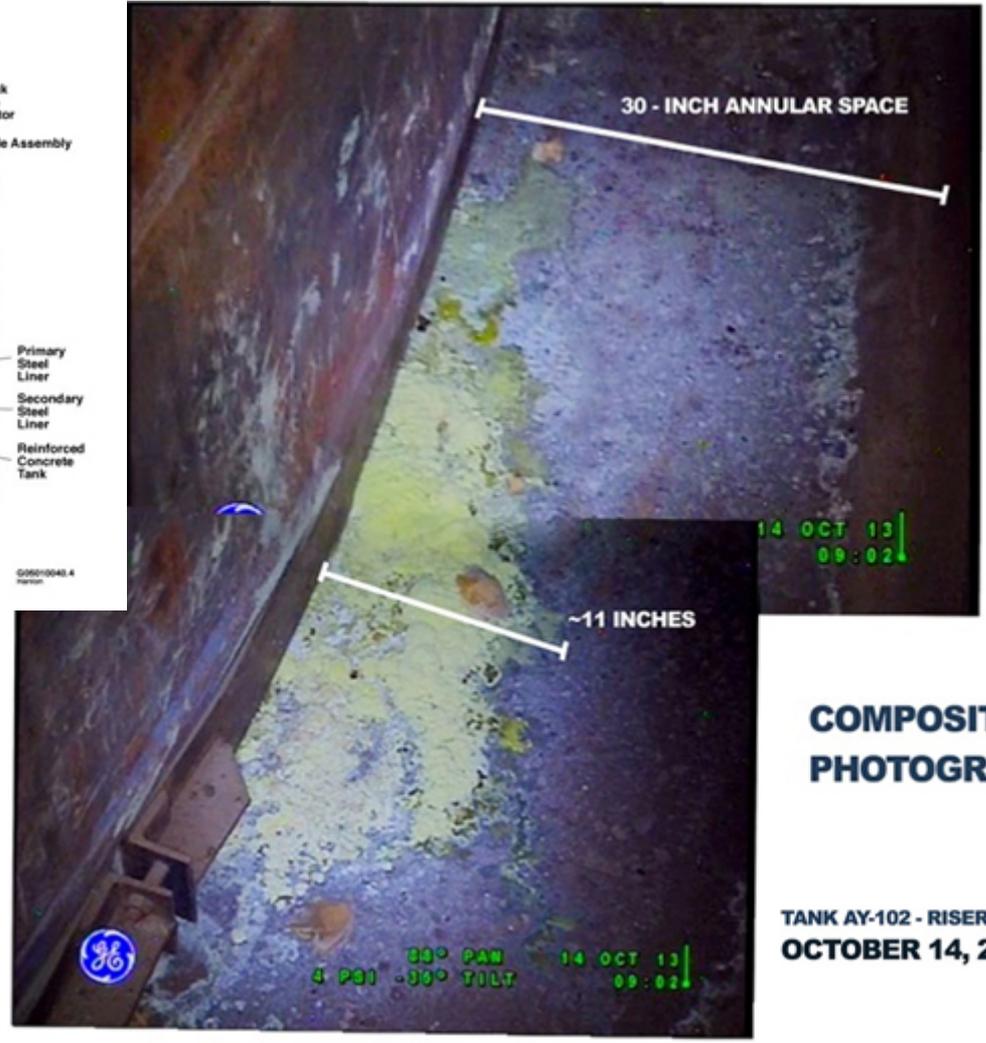




AY-102 Update



Double-Shell Tank Detail

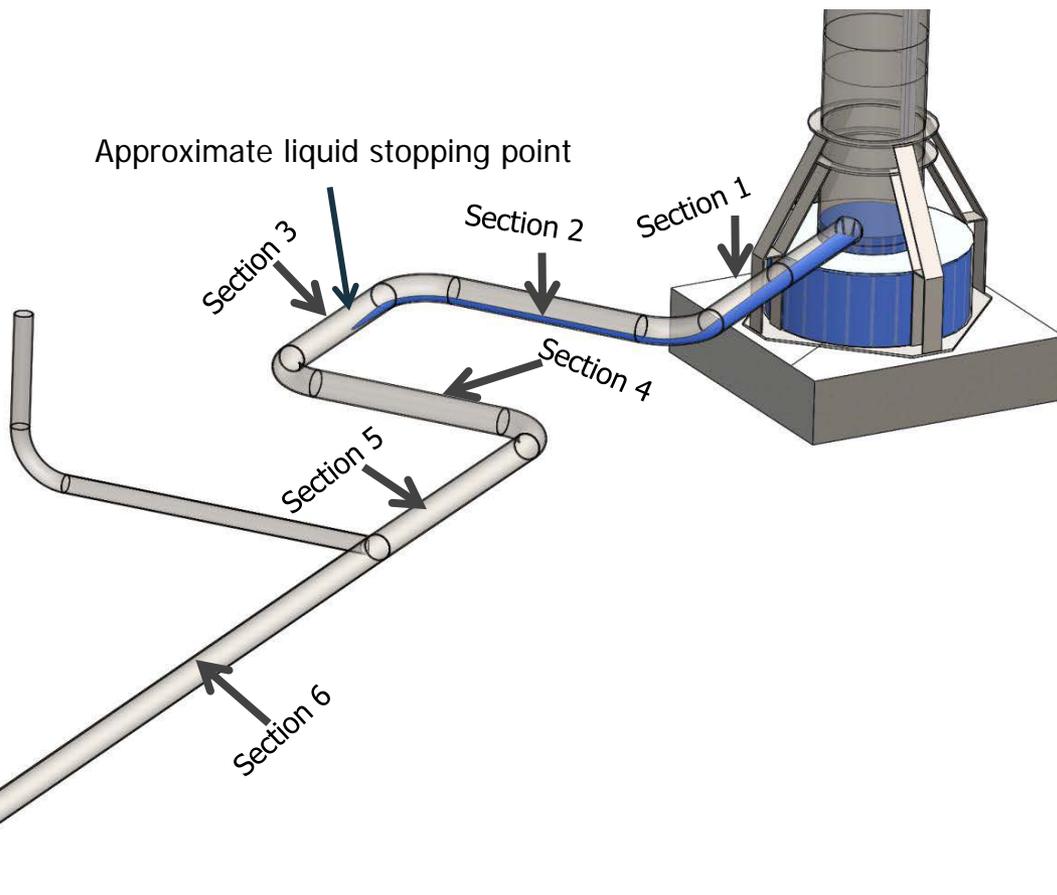
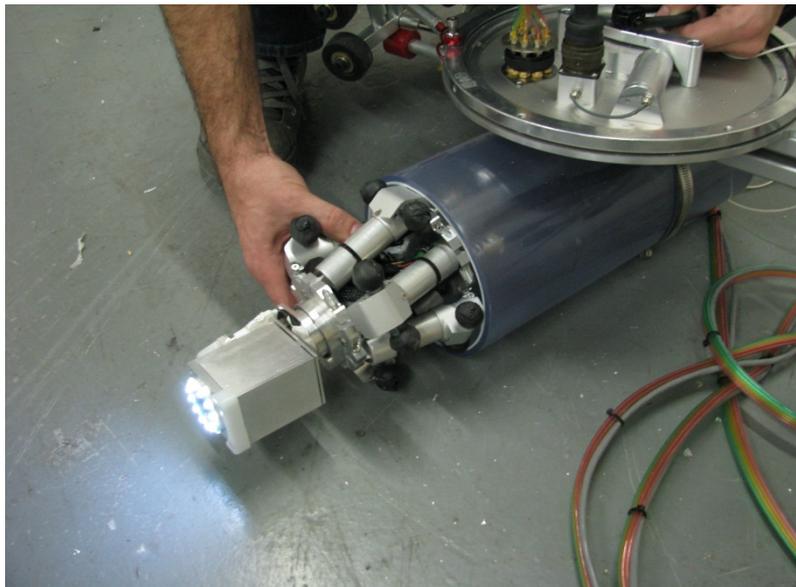


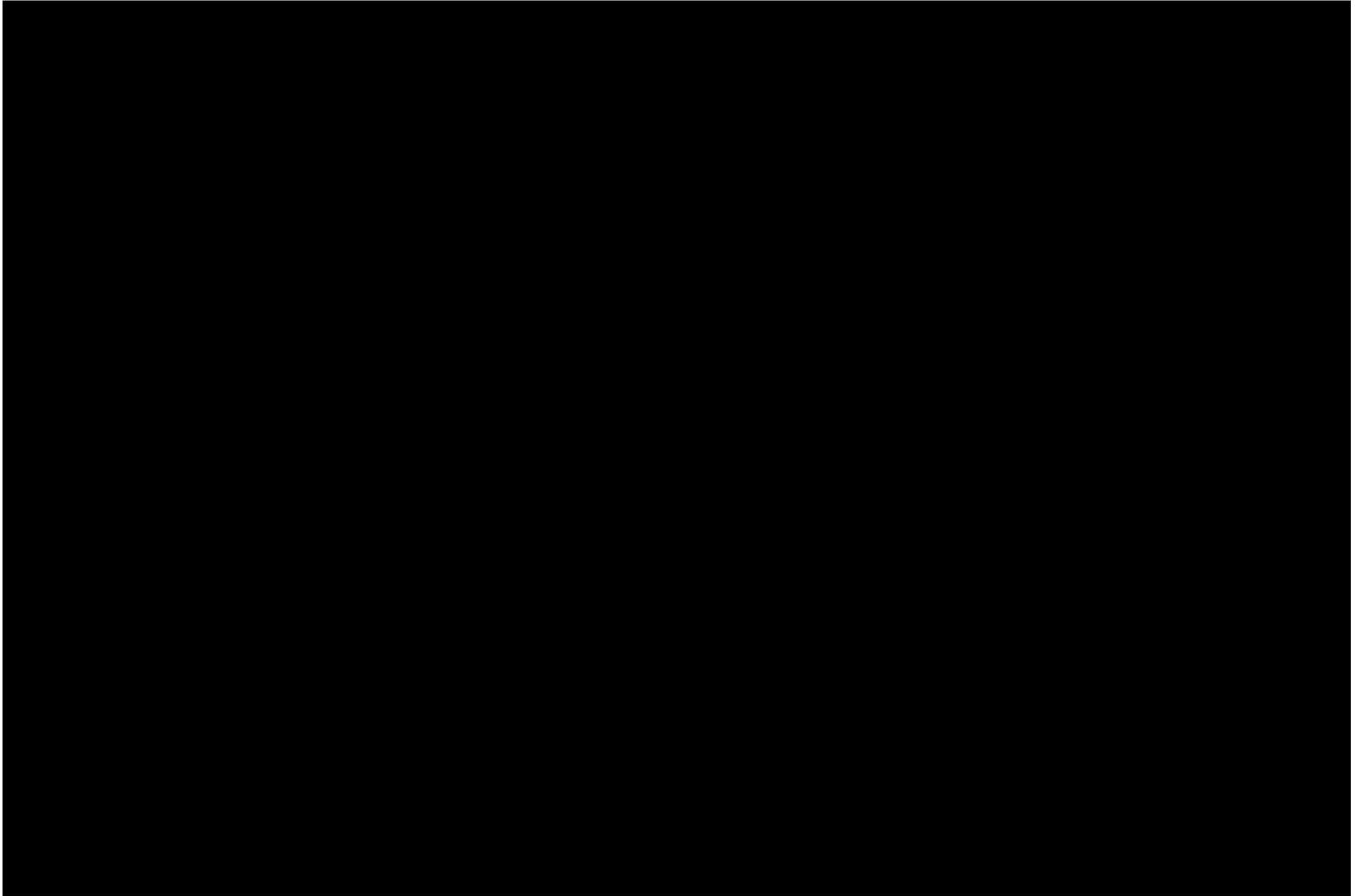
COMPOSITE PHOTOGRAPH

TANK AY-102 - RISER 83
OCTOBER 14, 2013



Double-Shell Tank AY-102 Update







Waste Treatment and Immobilization Plant Update



High-Level
Waste Facility

Pretreatment
Facility

Analytical
Laboratory

Balance of Facilities
(20 support buildings)

Low-Activity
Waste Facility

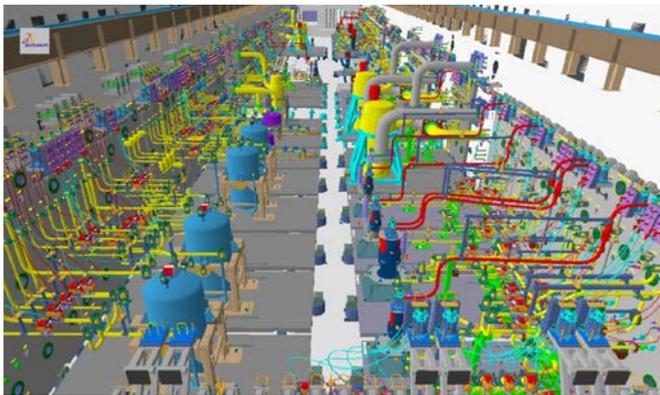
September 10, 2013



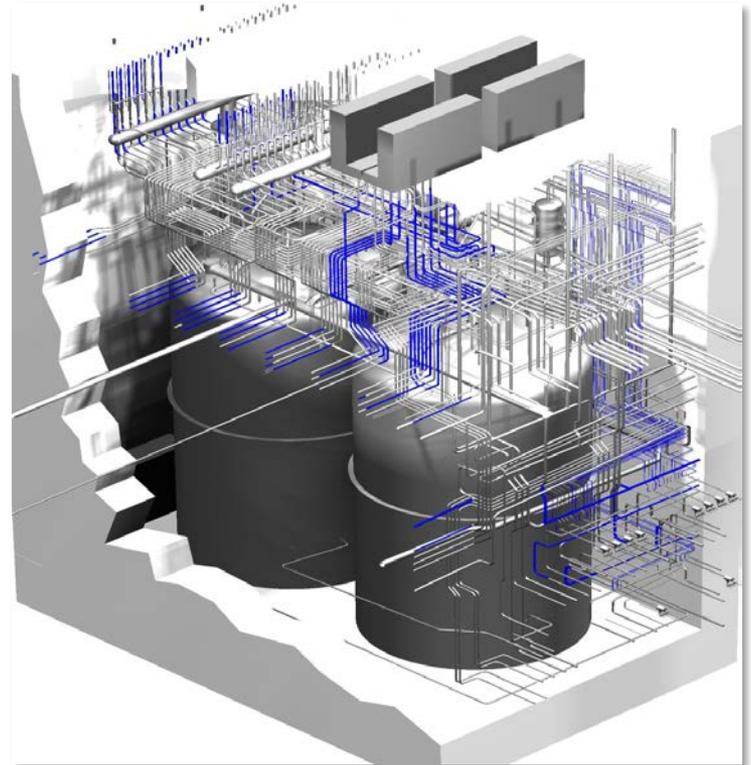
Pretreatment Facility



Exterior



Hot cell



Vessels and pipes in black cell



High-Level Waste Facility



Exterior



Truck Bay Walls



Melter Bay



Bridge Crane



Low-Activity Waste Facility



Exterior



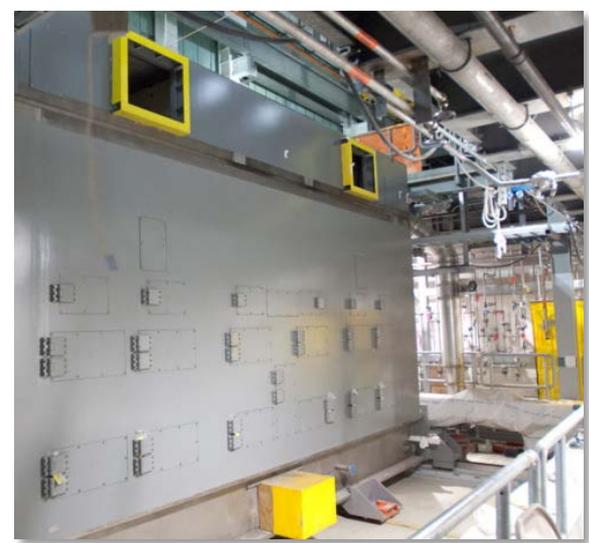
Overhead pipe racks for steam and glass formers



Carbon bed adsorber



Transfer Tunnel



Melter



Analytical Laboratory



Exterior



Fume hoods



Air-handling systems



Balance of Facilities



20 support buildings for the Balance of Facilities



Glass former piping



Overhead pipe racks for steam and glass former materials



Glass former silos



Selected Topics Specifically for the Hanford Advisory Board



Improved Waste Tank Summary Report

HNF-EP-0182 Summary Table

Added summary of changes listed in table at beginning of report

- Improve transparency
- Communicate effectively
- Progressing towards online system similar to the "Groundwater Annual Report"

Table 1-1. Waste Tank Summary
 July 31, 2013

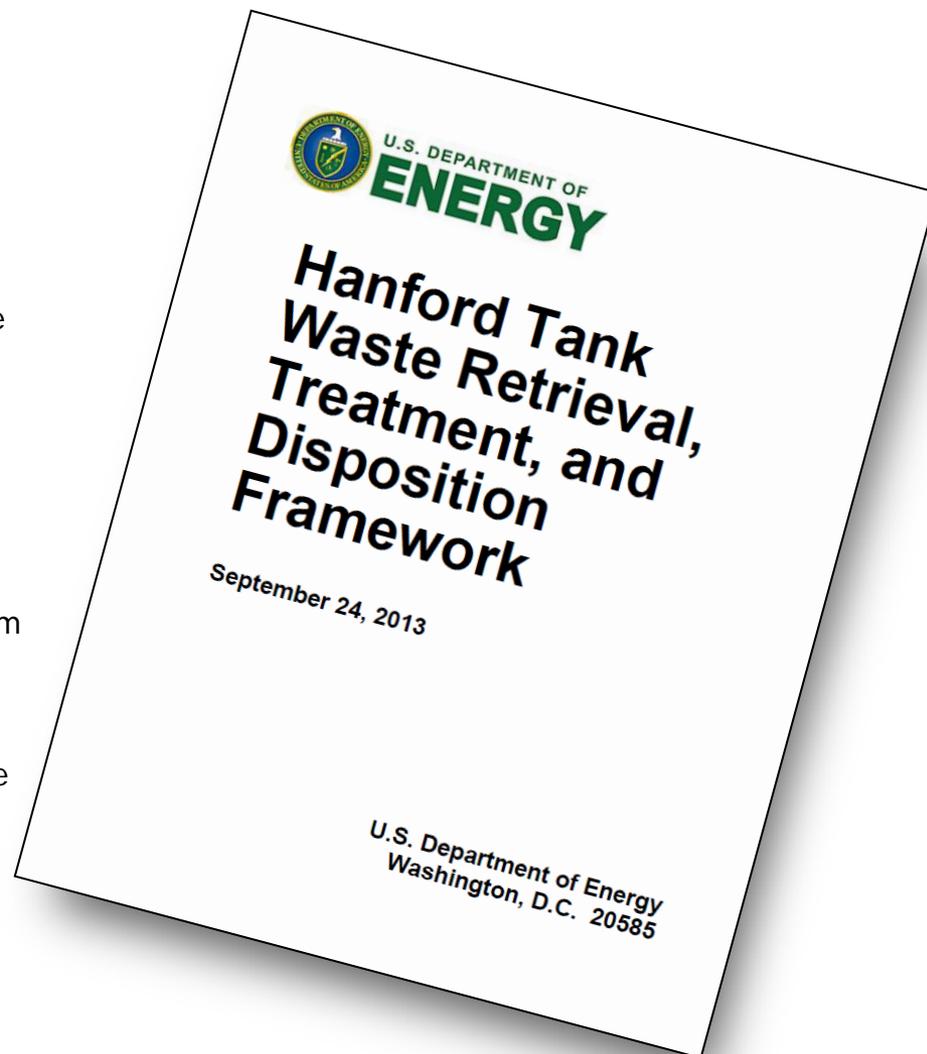
	1 year ago	1 mo. ago	Current	1 year ago	1 mo. ago	Current	1 year ago	1 mo. ago	Current
Double Shell Tanks	28	27	27	0	1	1	0	0	0
	Sound DSTs			DSTs with Primary Tank Leak			DSTs with Secondary Tank Leak		
	32.1	32.3	32.3	26.1	26.6	26.6	3.6	3.3	3.3
	DST Storage Capacity (Mgal)			Waste Stored in DSTs (Mgal)			Available DST Storage Space (Mgal)		
	82	82	86	67	67	63	0	1	1
	Sound SSTs			Assumed Leaker SSTs			SSTs with Known Active Leaks		
Single-Shell Tanks	29.4	29.3	29.2	6 ⁽¹⁾	7 ⁽¹⁾	7 ⁽¹⁾	4	5	5
	Total Waste Stored in SSTs (Mgal)			Retrieval Operations Complete, Approved ⁽¹⁾ and Not Approved ⁽²⁾			SSTs in Retrieval ⁽³⁾		
	0	20	20	0	19	19	2	2	2
	SSTs in Level Increase Evaluation ⁽⁴⁾			SSTs in Level Decrease Evaluation ⁽⁵⁾			SSTs in Formal Leak Assessment		



DOE's Phased Approach to Mission Completion

The Secretary of Energy's "Framework" calls for Hanford's cleanup mission to be completed in three phases. Phase 1 key activities include:

- Completion, commissioning, and startup of Low-Activity Waste Facility, Balance of Facilities and the Lab (LBL), the ongoing C Farm retrievals, and the tank farm infrastructure and an interim pretreatment capability needed to directly feed the LAW Facility
- Final permitting of the onsite Integrated Disposal Facility (IDF) for low-activity waste
- Retrieval and shipment of any properly classified and permitted contact handled transuranic (CH-TRU) waste from the single-shell tanks to WIPP
- Initiation of a tank waste characterization and staging capability in the tank farms to support HLW Technical Issue Resolution, and completion of full-scale vessel testing and resolution of technical issues in the PT and HLW Facilities.





ORP Funding Impacts

PBS	PBS Title	FY 2013 Full Year CR	FY 2014 President's Budget	FY 2014 CR*
ORP-0014	Radioactive Liquid Tank Waste Stabilization and Disposition	\$ 409,223	\$ 520,216	\$409,000
ORP-0060	Major construction – Waste Treatment Plant	\$ 680,506	\$ 690,000	\$675,000
Total – ORP	Office of River Protection Funding Summary	\$1,089,729	\$1,210,216	\$1,084,000

Amounts in thousands

*Continuing Resolution (CR) as of December 2013



Workforce Restructure

- Washington River Protection Solutions notified their employees that they will be implementing a workforce restructuring in FY 2014
- Restructuring activities are necessary to align workforce with work scope and funding
- Up to 250 employees may be impacted
- The reductions will affect both bargaining unit and non-bargaining unit workers
- Voluntary Reduction of Force:
 - December 2, 2013 window opens
 - December 13, 2013 window closes
- Involuntary Reduction of Force by end of January 2014



Update on a few of ORP's Challenges . . .

Budget

Tank Farms Infrastructure

Technical Issues Resolution

Tri-Party Agreement/Consent Decree Milestones

Decision to Proceed on HLW – Production Engineering

Implementing Phased Approach to WTP Start-up – ‘Framework’

Transition to WTP Operations

Resources

Quality

Nuclear Safety Basis



Protect the Public, the Environment and Our Workers

Safety Always Comes First!

White Bluffs overlooking the Columbia River on the Hanford Reach