WASHINGTON CLOSURE HANFORD: CLEANUP PROGRESS ALONG HANFORD’S RIVER CORRIDOR

Scott Sax
President and Project Manager
Washington Closure Hanford

September 2015
Hanford’s River Corridor is home to Cold War legacy wastes from nuclear reactors and support facilities dating back to the early 1940s.

- Deactivate, decontaminate, decommission and demolish 331 facilities
- Clean up and close 583 burial grounds, waste sites
- Treat, transport, and dispose 11.8 million tons of waste debris to disposal facility
DOE’s Largest Environmental Management Cleanup Closure Project

- $2.7B contract
- Cost-plus incentive fee contract
- Making great progress
- Project is 93% complete

Partners: [AECOM](#) 40%, [Bechtel](#) 30%, [CH2M](#) 30%
Recognized for Safe, Cost-Effective Progress

- Contract extended through 9/30/2016
- Received Project of the Year award from local chapter of the Project Management Institute; one of three finalists for national award

Additional time will bring total budget to almost $2.9 billion

The Department of Energy is extending Washington Closure Hanford’s contract by one year through September 2016, DOE announced Tuesday. The extension gives some job security to the employees of the contractor. At least some of the 700 employees will have jobs for another year.

The final year of the extended contract would focus mostly on two challenging projects: cleaning of the trenches at the 61 Hanford Site and plugging the 334 Building to maintain a material status for future demolition, said Scott Sax, president of Washington Closure, in a message to employees Tuesday.

Washington Closure is working under a 10-year contract that was expected to end four months from now with the environmental cleanup of the 220 square miles of Hanford along the Columbia River completed.

But budget shortfalls, including negotiations for mandatory budget cuts, and some contamination that was found to be more extensive and hazardous than expected, have kept the work from being done by September 2015. DOE also has added $400 million worth of work to the contract since it was awarded.

The work covered under the contract through this fiscal year comes to just over $2.7 billion, and the additional year will bring the contract budget to a total of almost $2.9 billion.

“They’ve done exemplary work,” said Doug Strego, DOE deputy site manager for the Richland Operations Office. “We would not have contemplated extending the contract if they had not done work in such a safe and efficient manner.”

Work to date by Washington Closure has been $265 million under budget.

However, DOE does not anticipate extending the contract past September 2016, Strego said. That appears to be the best time to end the contract, he said.

Washington Closure will continue to excavate trenches in the 4100 Area. The Hanford Ground north of Richland under the extension. The buried ground also has vertically buried pipes that radioactive and hazardous chemical waste was dropped down.

Washington Closure had driven over 30,000 feet of ground around those pipes. Work to remove the pipes would only start in the final...
Risks and hazards facing our workers

- High-risk working conditions
- Radiological, chemical, and contamination hazards include chromium, asbestos, beryllium, mercury, and tritium
- Industrial and construction hazards
- Discovery of unexpected waste sites
- High-dose fuel elements and other reactor parts
- Unexploded ordnance
- Pyrophoric uranium oxide (UOX) drums
Risks and hazards facing our workers
Success in Project Performance

300 Area – 1982
Success in Project Performance

300 Area – 2015
Success in Project Performance

100-F Reactor Area – During Operations
Success in Project Performance

100-F Reactor Area – 2012, Cleanup Complete
Success in Project Performance

100-H Reactor Area – During Operations
Success in Project Performance

100-H Reactor Area – 2015
Success in Project Performance

100-D Reactor Area – During Operations
Success in Project Performance

100-D Waste Site Excavation
Success in Project Performance

100-D Reactor Area – 2015
Success in Project Performance

100-N Reactor Area – During Operations
Success in Project Performance

100-N Reactor Area – During Excavation
Success in Project Performance

100-B/C Reactor Area – During Operations

March 2014

2012
The Environmental Restoration Disposal Facility (ERDF) is the “Hub” of the Site’s Waste Disposal

- Over 11M tons disposed since 2005
  – 17M tons disposed since 1996
- Over 16 million miles driven by Waste Operations drivers since 2005
- $100M ARRA expansion project completed without injury

More than 2 million tons of chromium-contaminated soil has been disposed at ERDF.

ERDF’s disposal cells cover an area equivalent to 52 football fields.

Most of the debris at ERDF has been remediated away from the Columbia River.
ERDF Super Cell Excavation – ARRA Funded
Overview of 324 Chemical Engineering Laboratory

- Contaminated soil beneath B-cell discovered just prior to demolition in 2010
  - Soil highly radioactive (up to more than 12,000 R/hr)
  - Soil contamination confined below hot cell footprint
  - Not currently impacting groundwater – monitoring wells in place

Workers collected contaminated soil samples from beneath 324 Building B-cell for analysis.

Grout removed from the B-cell trench and sump uncovered a breach in the liner in 2009.
618-10 Burial Ground

Above: 618-10 Burial Ground, September 2015.

Right: Workers remove a decontamination cell that was once used a former Hanford research facility.
Above: Waste is excavated, processed as appropriate, and shipped to a disposal facility.

Right: Steel over-casings have been installed at 80 vertical pipe units at the 618-10 Burial Ground.
Risks and Hazards at the 618-10 Burial Ground

Drum R-1458/PIN 12–1775

Controlled reaction
Since 2012, more than 1,100 acres along the Columbia River have been restored, including 30 acres of wetland restoration.

More than 575,000 shrubs and 28,000 pounds of seed have been planted.

More than 2,200 tons of native grass straw has been spread over revegetated areas.

A significant portion of the 100-D Reactor Area has been revegetated.

Above: Wetlands restoration at a “borrow pit” near B/C Reactor Areas.

Left: Mulched grass straw covers revegetated areas near N Reactor.
2016 Work Scope and Closeout

- Finish strong
- Maintain safety performance and disciplined operations – avoid summit fever
- People Plan – Stay the course with people placement and retention processes – 96% placement rate since 2012
- Finish with pride – Closeout in months vs. years