



River Corridor Closure Project

Recovery Act Weekly Report

For the week ending February 4, 2011

Contract DE-AC06-05RL14655

Protecting the Columbia River

Overview

Background Summary of Projects that Washington Closure Hanford (WCH) will accomplish using ARRA funds (pending definitization of scope and contract modifications).

A. The Environmental Restoration Disposal Facility (ERDF)

ERDF is the hub of the WCH scope of work and supports a major portion of other Hanford contractor (OHC) waste disposal. Wastes collected from sites around the Hanford complex are brought to ERDF for treatment and disposal. WCH operates the ERDF and is currently using ARRA funds to upgrade and expand its capabilities to meet the needs of Hanford's accelerating mission.

B. The 618-10 Burial Grounds

The trenches at 618-10 have long been regarded as some of Hanford's worst waste sites. Using ARRA funds, WCH will characterize the site. Intrusive and non-intrusive techniques will be used, and the subsequent analysis of data will enable the project to pursue remediation of the site safely and effectively.

C. The 618-11 Burial Grounds

Along with 618-10, the 618-11 Burial Grounds are among the biggest challenges faced by WCH using ARRA funds. The 618-11 characterization work will require special care because of its proximity to the Energy Northwest Generating Facility, north of the 300 Area.

D. Waste Site Remediation

WCH is employing ARRA funds to clean up many failed waste sites not originally part of its contract. Sites in the 100-F and IU 2&6 segments 1&2 are proposed for waste site remediation in the two year period starting in October 2009.

E. Confirmatory Sampling of other new sites

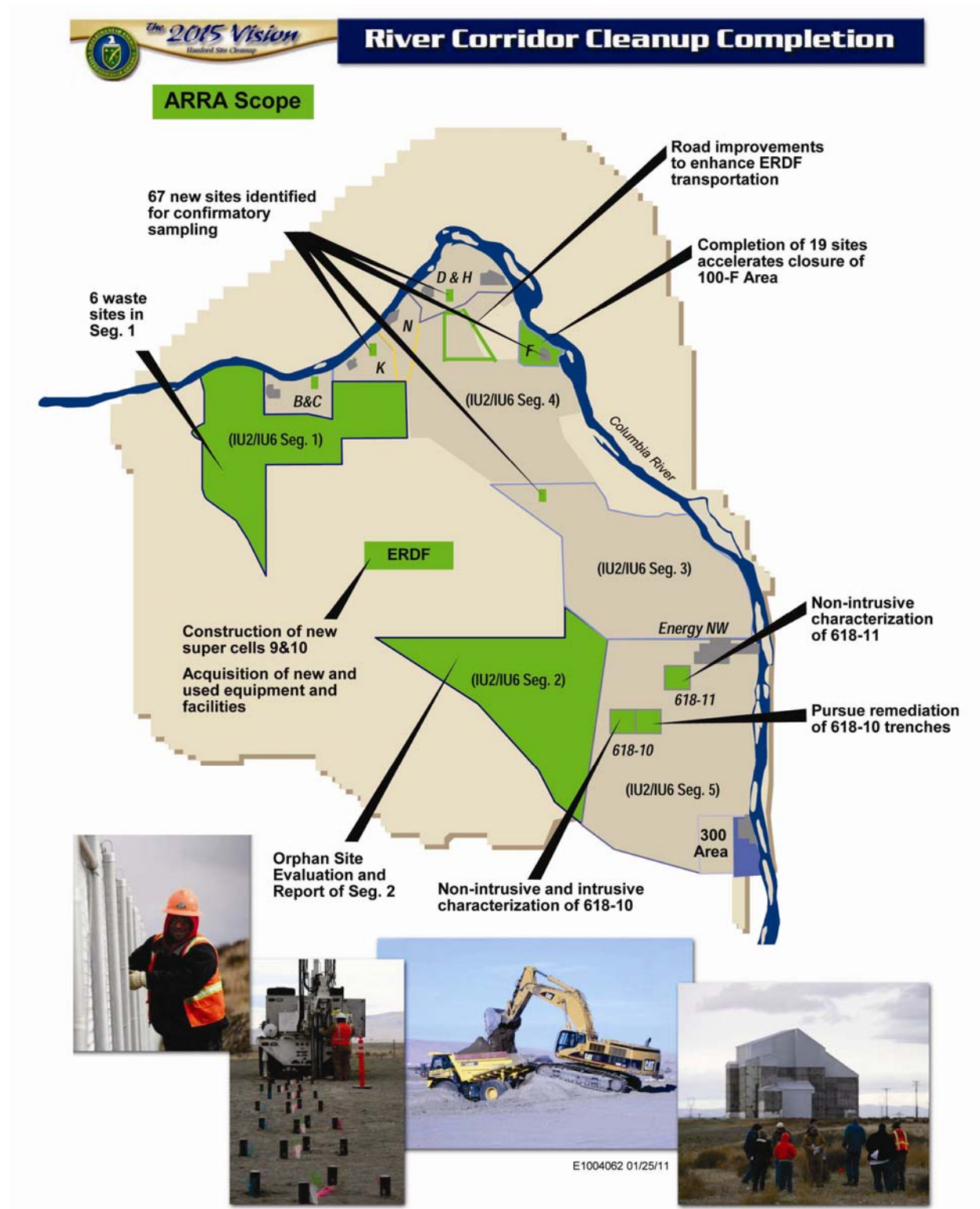
WCH is proposing to complete the early sampling process of 67 potential waste sites using ARRA funds. Confirmatory sampling is performed for sites that require additional information for determining if the site requires remediation.

This weekly report will provide evidence of these activities as they occur in support of ARRA.

The following figure illustrates the overall scope of WCH's ARRA projects.



Overview (Continued)



Safety

Safety Accomplishments

As of December 20, 2010, WCH and its subcontractors have worked 338,914 hours of ARRA scope with no safety incidents.

Hazard Reductions

WCH Safety issued a presentation to its employees titled "Electrical Safety Occurrences and Best Practices." The presentation highlighted the following occurrences:

- Tingling shock from damaged electrical cord
- Excavator contacts overhead line
- Electrical box hit by aerial lift
- Gear stored near power conditioner
- Minor tingle felt from an extension cord
- Battery housing bursts on an electric scissor lift
- Welder current damaged fall protection
- Concrete saw cuts energized lighting line.

There were nine electrical incidents across the DOE Complex in the past several months. Some examples include the following:

- Failure to accurately perform work resulted in an inappropriate Lockout/Tagout.
- Work scope failure as well as a hazard control failure occurred when security personnel unbolted a security gate to address its state of inoperability without proper Lockout/Tagout.
- Grounding failure when a shock was received while plugging in a cell phone charger hazards was not properly identified.

Each one of these incidents is a direct result of non compliance to the ISMS process. Even though none of these incidents occurred on a WCH project, workers should conduct proactive assessments and surveillances.

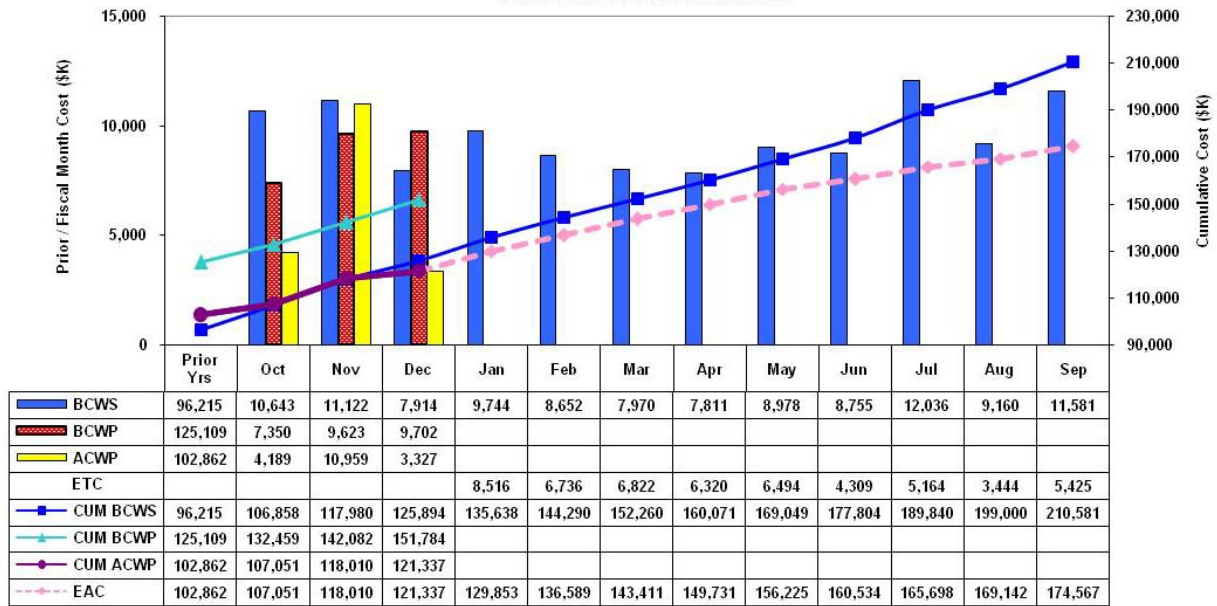
- Personal safety tips
 - Take charge of your own safety
 - Electricity is an ever-present hazard
 - Wet conditions increase the chance of creating an unintended path for electricity
 - Use battery operated tools if possible
 - Keep cords off the ground, out of water
 - Don't handle cords with wet gloves; make sure dry gloves are available
 - Unplug extension cord at the source instead of unplugging the tool from the cord.
- Use the right equipment
 - Make sure cords and tools are approved and rated for use in the work environment, according to manufacturer's instructions and listing.



Cost/Contract Status

Contract Mod #	Date	Scope	Obligated (\$M) (Inception to Date)	Not to Exceed (\$M) (Inception to Date)
099	4/9/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$28.0
105	4/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$44.5
126	7/23/09	H.37 Clause - Reporting Requirements	N/A	N/A
139	9/3/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$253.6	\$44.5
142	9/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	\$253.6	\$123.8
174	2/22/10	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	\$248.2	\$123.8
182	3/25/10	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	\$248.2	\$155.8
185	4/19/10	Phase 1 and Phase 2 Scope	\$248.2	\$178.0
192	4/27/10	Phase 1 and Phase 2 Scope	\$253.6	\$178.0
205	5/26/10	Reallocate Funds for Equipment and GPPs	\$253.6	\$178.0
210	6/23/10	Funding deobligation	\$229.3	\$178.0
217	8/4/10	Funding re-obligation	\$233.6	\$178.0
230	9/24/10	Phase 3 Definitization	\$233.6	\$178.0
241	11/22/10	Reallocate Funds for Equipment	\$233.6	\$178.0
242	12/1/10	Increase the Cost Authority on RL-0041.R2	\$233.6	\$196.6
247	12/16/10	Reallocate Funds for Capital Expenditures	\$233.6	\$196.6

RCC Project - ARRA
Current Performance Measurement Baseline (PMB)
Prior Years / FY11 Fiscal Month



ARRA Proposals 1, 2 and 3 Actuals (\$K)

Apportionment Number	Apportionment Title		December 2010	Inception To Date	Cost Authority
RL-0041.R1	ERDF Cell Expansion	PMB	799	87,268	139,072
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	2,527	34,069	57,566
Sub Total		PMB	3,326	121,337	196,638
Fee			480	12,193	
Total			3,806	133,530	

* PMB = Performance Measurement Baseline.



ERDF

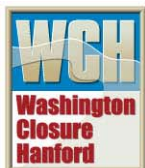
Super Cells 9 and 10 Construction

On January 20, 2011, Washington Closure Hanford delivered to the U.S. Department of Energy (DOE) the *Final Report Construction Quality Assurance (CQA) Environmental Restoration Disposal Facility (ERDF) Super Cell 9* (submittal S013213A00-05-030-001) to introduce waste into the super cell. DOE forwarded the report to the U. S. Environmental Protection Agency (EPA) for approval. The EPA completed its review and sent a letter on January 28, 2011, to DOE approving the additional cell operation. In conjunction with the report, the project team is performing a Project Start-Up Review to ensure operational readiness. The super cell is expected to begin accepting waste in mid-February.

WCH subcontractor TradeWind Services conducted final acceptance testing for super cell 10 with DOE Richland Operations Office and EPA. Super cell 10 is scheduled to begin accepting waste in March. TradeWind also began final acceptance testing for Leachate Storage Tank (LST) No. 3. The majority of testing was completed, but the project team encountered a minor valve problem. Parts are on order, and testing will be completed by mid-February.

Last month, TradeWind conducted final acceptance testing for LST No. 4. The project team is scheduled to begin assembling the dome cover for LST No. 4 next week and will place the dome cover over the tank later this month. Assembly of the dome cover for LST 3 will then begin.

Removal of one of the two original leachate storage tanks was completed in September. The second will be removed when the replacement tanks are in service. Each of the original tanks measured 80 feet in diameter and had a capacity of 275,000 gallons. Each replacement tank is 8 feet tall and 100 feet in diameter with a 425,000-gallon capacity. The dome covers are 12 feet tall.

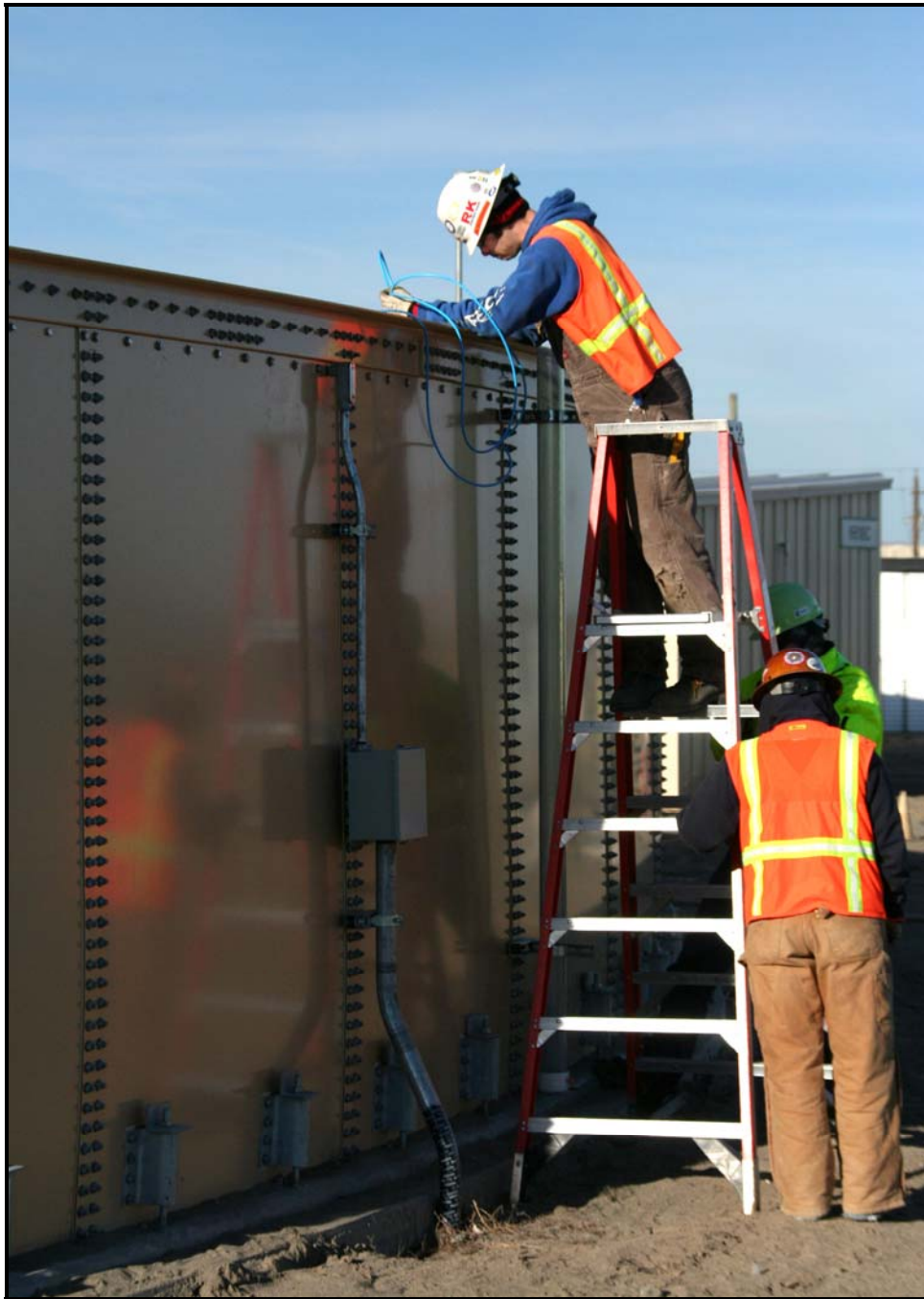


ERDF (Continued)



Washington Closure Hanford subcontractor TradeWind Services test the trench pump control panel in crest pad building 10 during final acceptance testing of Leachate Storage Tank No. 4. The testing was conducted with the U.S. Department of Energy and the U.S. Environmental Protection Agency. (Photo 1)

ERDF (Continued)



TradeWind lowers a transducer to test alarms at 3.6 feet and 7 feet in Leachate Storage Tank No. 4. If the 7-foot alarm sounds, all the pumps on the site shut off. (Photo 2)

ERDF (Continued)

Facility and Equipment Upgrades

WCH subcontractor ELRFowler continues to make progress with construction of ERDF's new maintenance facilities. At the container maintenance facility, the project team completed the electrical and plumbing rough-in and continued to construct the interior wall frames and install sheetrock. At the equipment maintenance facility/operations center, the project team completed installing the horizontal structures.

The container maintenance facility will include a large container repair line, a maintenance shop, and a weld area. The equipment maintenance facility will include two service lines, an operational storage facility, a large concrete pad, and an exterior awning over a smaller concrete pad. The new operations center will help alleviate severe overcrowding of personnel and also accommodate new employees hired to handle the increasing waste volumes.

ELRFowler also is constructing an upgraded transportation truck maintenance facility. The facility will include two additional truck bays, a large concrete pad, an exterior awning that will cover two smaller concrete pads, and a conference room.



An employee with Washington Closure Hanford subcontractor ELRFowler works to install sheetrock in the new container maintenance facility at ERDF. (Photo 3)

ERDF (Continued)

Pacific Northwest National Laboratory (PNNL) completed software development of a new waste container tracking system for ERDF. PNNL is testing the prototype and producing radio-frequency identification tags. The system will accurately track waste shipments and equipment, and generate real-time reports.

WCH subcontractor DelHur Industries continues to work on the electrical installation for ERDF's new batch plant. The batch plant will produce "flow fill" concrete used to mix with debris, ensuring no void space during disposal operations. In support of the batch plant, WCH purchased two concrete mixer trucks and a pump truck from Peters and Keatts Equipment Inc. Peters and Keatts is based in Lewiston, Idaho.

The newly expanded section of the ERDF's existing container transfer area (CTA) is in service. The existing CTA was enlarged 600 feet to provide additional storage for about 300 waste containers.



Waste containers occupy the recently expanded container transfer area at the Environmental Restoration Disposal Facility. (Photo 4)

ERDF (Continued)

DelHur Industries completed installation of transmission lines and placed the tank for ERDF's new septic system. Backfilling is under way. ERDF's new septic system was designed by Columbia Engineers and Constructors, a small business based in Richland, Washington. The weather enclosures for crest pad buildings 1 and 2 have been ordered and are expected to arrive on site this month. Survey and layout work for the foundations is under way. The enclosures were designed by Vista Engineering, a local company.

Upcoming Activities

- Continue construction of the container maintenance facility.
- Continue construction of the equipment maintenance facility/operations center.
- Continue construction of the transportation maintenance facility.



618-10 Burial Ground

Trench Remediation Project

WCH completed the Project Start-Up Review for full-scale mock-up training for personnel in preparation for remediation of the 618-10 Burial Ground trenches.

WCH subcontractor White Shield/Apollo is close to completing the installation of utilities for trench remediation activities. The project team is installing the electrical system and building site roads in preparation for full-scale remediation to begin in March.



Washington Closure Hanford subcontractor Wildlands spreads hydroseed at the 618-10 Burial Ground. The hydroseed will help with dust suppression and erosion. (Photo 5)

618-10 Burial Ground (Continued)



Mobilization of heavy equipment was completed at the 618-10 Burial Ground. Mock-ups are under way and full-scale remediation activities scheduled to begin in March. (Photo 6)

618-10 Burial Ground (Continued)



*Workers are close to completing installation of the electrical system at the 618-10 Burial Ground.
(Photo 7)*

Intrusive characterization field operations at the burial ground were completed in early September. Test pits were dug through a subset of disposal trenches and unearthing a limited number of drums to verify the condition and types of wastes that were disposed.

Several drums containing radioactive waste, a shipping cask, and miscellaneous waste were discovered during the intrusive trench characterization activities. The drums contained depleted uranium and uranium oxide. In addition, “concreted” 55-gallon drums, which contained liquid radioactive waste, also were discovered.

Based on the records research and the finds during intrusive characterization, the number of drums the burial ground may contain is estimated to be as many as 4,000. That includes an estimated 800 concreted drums that were used to dispose of highly radioactive waste nested inside a pipe surrounded by concrete. The pipe contains the waste and the concrete provides radiation shielding for its contents. Workers also found a cask with unknown contents, bollards, bottles, metal pieces, and other miscellaneous debris.

618-10 Burial Ground (Continued)

Nonintrusive characterization field activities were completed in May. The scope of activities carried out as part of nonintrusive characterization included geophysical delineation, in situ characterization using a multi-detector probe, and soil sampling from below a selection of 10 VPUs. During in situ characterization, measurements were collected for 100 cone penetrometers in the trench area and 375 cone penetrometers in the VPU area.

The 618-10 Burial Ground operated from 1954 to 1963, receiving low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities. Low-activity wastes were primarily disposed in 23 trenches, while the moderate- and high-activity wastes were disposed in 94 VPUs. The VPUs were constructed by welding five bottomless drums together and buried vertically about 10 feet apart.

Upcoming Activities

- Continue with construction site upgrades.
- Continue with training and mockups.



100-F Area

WCH and subcontractor Ojeda Business Ventures continued to make considerable progress with remediation of 19 waste sites at 100-F Area. Field work began in September and will conclude this spring.

The project team continued a test pit campaign at 100-F-57, which contains hexavalent chromium in the area of a concrete slab and underlying soil. Work to load out stockpiled asbestos from the site also was completed.



The stained side of a test pit at 100-F-57, where hexavalent chromium was found. (Photo 8)

The project team continues to remove pipes and drain liquids at 100-F-26:7, which contains sodium dichromate and sodium silicate pipelines. Excavation and loadout was completed at 100-F-47 (electrical substation foundation), and the loadout of stockpiled waste is under way at 100-F-49 (old maintenance garage lube pit foundation, pipelines, and drywells).

An underground storage tank was discovered at 100-F-49 last month, and sampling of the soil around the tank was performed. The presence of motor oil, gasoline, lead, and other

100-F Area (Continued)

substances were confirmed to be in the area. A job hazard analysis was conducted for pumping the liquid out of the tank for sampling.



Washington Closure Hanford subcontractor Ojeda Business Ventures began loadout of stockpiled waste at 100-F-49, which contained a maintenance garage lube pit foundation. (Photo 9)

100-F Area (Continued)



A worker cuts and drains pipe at 100-F-26:7, which contains sodium dichromate and sodium silicate pipelines. (Photo 10)

100-F Area (Continued)



A worker drills a hole to drain liquid from a pipe at 110-F-26:7. (Photo 11)

100-F Area (Continued)



A pipe is cut and liquid drains out at 100-F-26:7. (Photo 12)

F Reactor operated from 1945 to 1965 as one of Hanford's nine surplus plutonium production reactors for the nation's nuclear weapons program. The reactor was cocooned in 2003. During reactor construction and operations, waste was disposed in unlined pits and trenches throughout the site.

The 100-F Area also was the home of the experimental animal farm (EAF), which from 1945 to 1976 operated adjacent to the reactor site. The EAF used animals for studying the potential effects of ionizing radiation exposure to humans in the occupational setting. Reactor and EAF sites in the 100-F Area contributed to the discharge of contaminated cooling water, other liquids, and solid wastes.

WCH completed cleanup of 53 waste sites at F Area in 2008, loading out more than 408,000 tons of waste. However, during the course of cleanup, 19 additional waste sites were discovered. The sites are:

- 100-F-26:4 (process sewer pipeline section)
- 100-F-26:7 (sodium dichromate and sodium silicate pipelines)

100-F Area (Continued)

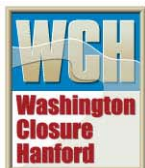
- 100-F-44:8 (fuel oil pipelines)
- 100-F-44:9 (process sewer pipeline)
- 100-F-45 (buried riverbank effluent pipeline)
- 100-F-47 (electrical substation foundation)
- 100-F-48 (coal-pit debris)
- 100-F-49 (maintenance garage lube pit foundation, pipelines, drywells)
- 100-F-51 (fish laboratory footprint, pipelines)
- 100-F-55 (contaminated ash layer)
- 100-F-56 (scattered surface debris, stains)
- 100-F-57 (buried pipeline cradle debris)
- 100-F-58 (asbestos-containing surface debris)
- 100-F-60 (pipeline)
- 100-F-61 (stained soil site)
- 100-F-8 (French drains)
- 100-F-62 (animal farm septic lines)
- 100-F-63 (animal farm radioactive effluent lines)
- 600-351 (stained oil areas).

Upcoming Activities

- Continue loadout of stockpiled asbestos waste at 100-F-57.
- Continue test pit campaign at 100-F-57.
- Continue draining liquids from pipes at 100-F-26:7.
- Continue pipe removal at 100-F-26:7.
- Begin excavation and stockpiling at 100-F-61.
- Continue loadout of stockpiled waste at 100-F49.
- Collect grab samples from 100-F-47.

Video

[Click here to view the video of remediation progress at 100-F Area waste sites.](#)



IU 2 & 6 Segment 1

WCH completed cleanup and restoration of the five IU 2&6 waste sites in November 2010. Segment 1 encompasses about 28 square miles of the northwestern portion of the Hanford Site, away from the nine surplus plutonium production reactor areas. The waste sites were unique because they were primarily used for housing and support areas.

The remediation sites were:

- 600-341 (four areas that contained dry cell battery remnants and/or battery debris)
- 600-343 (residual ash from burned material and dumped asphalt in excavation trench)
- 600-344 (stained area)
- 600-345 (stained area with oil filters)
- 600-346 (four small fly-ash dump areas with metal debris).

A global positioning environmental radiological survey indicated that an additional site, 600-342, did not require additional remediation.



Confirmatory Sampling

WCH completed sampling of ARRA confirmatory sites. Sampling was performed at 41 sites in accordance with the regulator approved work instructions that were completed earlier this year. Based on the sampling results, documentation is being prepared to recommend whether the sites require remediation. This documentation is then submitted to the DOE and the regulatory agencies for review and approval. The recommendations have been approved for more than 75% of the sites, and the remaining documents are under development or in the review and approval process.



General

Media, Visits, Press Releases

No significant media events this week.

Contracting Actions

No significant contracting actions this week.

