



River Corridor Closure Project

Recovery Act Weekly Report

For the week ending April 11, 2010

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

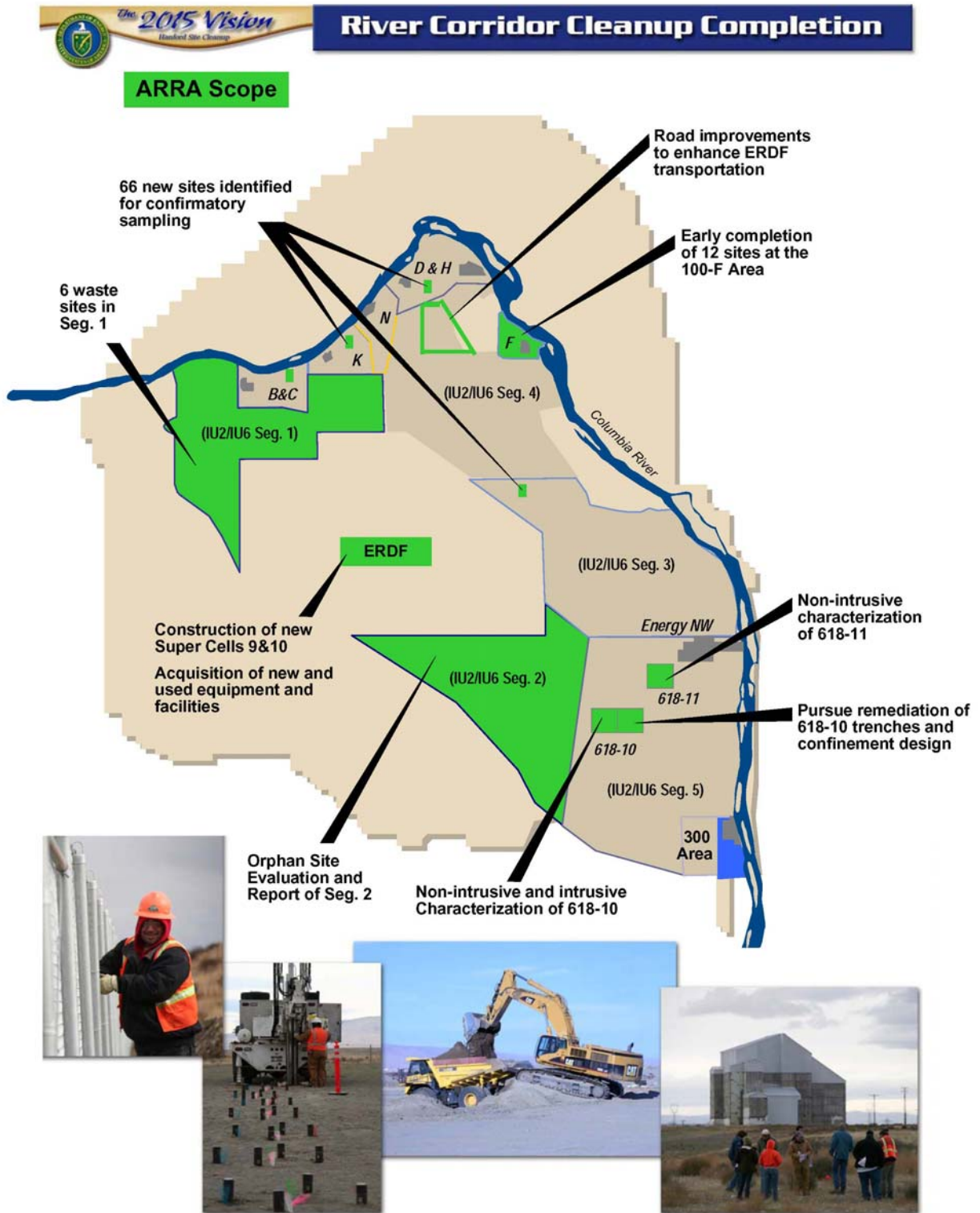
WCH is proposing to complete the early sampling process of 66 potential waste sites using ARRA funds. Confirmatory sampling is performed for sites that require additional information for determining if the site requires remediation.

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 March 28, 2010, WCH and its subcontractors have worked more 172,460 hours of ARRA scope with no safety incidents.

Hazard Reductions

The River Corridor Closure's Vehicle Safety Campaign began April 5 and continues through April 30. All WCH personnel, including subcontractors, will be part of a focused campaign that is aimed to raise awareness of the importance of vehicle safety and to demonstrate the defensive driving techniques and behaviors that will help to improve our drive to and from work.

Driving is one of the most hazardous activities we perform each day. Because we do this activity so routinely, our level of perceived risk is low due to the relative frequency of incidents. However, this is why it is so important to keep focused and drive defensively.

Each site location will be grouped together for this initiative:

- D4 (Decommission, Deactivate, Decontaminate, Demolish)
- Field Remediation
- Waste Operations
- Mission Support/Mission Completion (Fermi, Warehouse, Training).

Each group is to go a month without any vehicle incidents through positive actions, such as performing 360-degree walk-around inspections, seat-belt use, correct speed limits, no hands-use talking on cell phones, and stopping at all stop signs. All employees at sites that accomplish this goal of zero vehicle incidents will be eligible for a drawing for one of three awards: Garmin GPS, vehicle charger/compressor, and flashlight.

If a site does have a vehicle incident, the other site employees who met the goal of zero incidents will all be put in another drawing for that site's awards.

So far, WCH has accomplished one week without a vehicle incident. So, all sites are still in the running for the incentive awards.

Meanwhile, all WCH are reminded to ask the following questions:

- Have you done your 360 observation?
- Did you wear your seatbelt and stop completely at the stop sign?

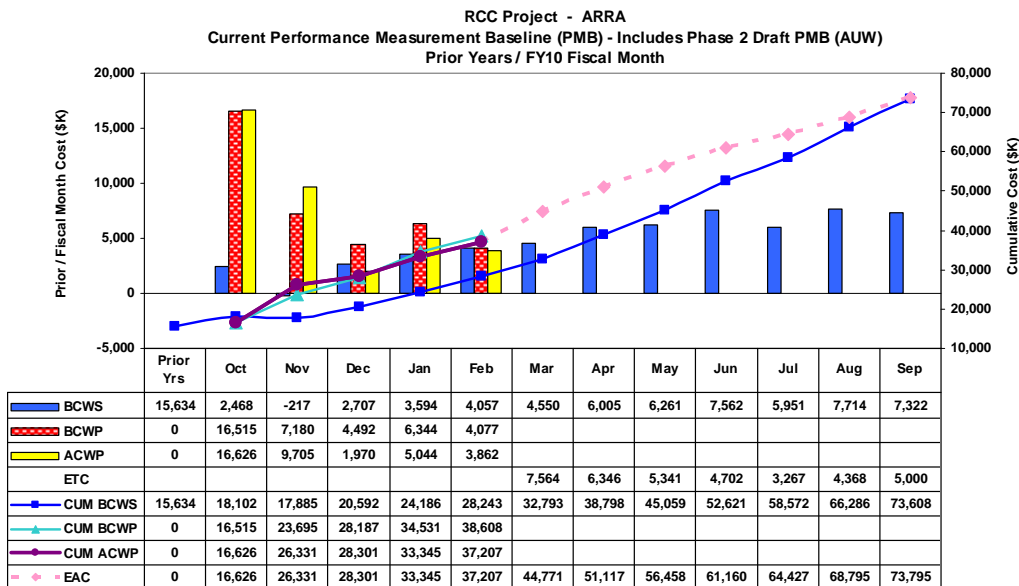
These are the behaviors that will help all employees be more aware of their surroundings and encourage the safe defensive driving habits which are the focus behaviors during this campaign.



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

Contract Modification #174 de-obligated \$5.4M from the 618-10 NIC scope. A re-obligation contract modification of equal value is in process for ERDF Cell Expansion & Upgrades. Contract Modification #182 increased the Not to Exceed amount by \$32M.



ARRA Actuals (includes PMB and Proposal 2)

Apportionment Number	Apportionment Title	PMB or Balance *	Feb 2010	Inception To Date	NTE Amount
RL-0041.R1.2	ERDF Cell Expansion	PMB	2,190	25,205	
		Balance	482	2,438	12,000
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	926	8,050	
		Balance	265	1,515	5,000
Sub Total		PMB	3,116	33,255	
		Balance	747	3,953	17,000
Fee			204	2,249	
Total			4,067	39,457	

* PMB is the Phase 1 Performance Measurement Baseline. Balance is Proposal 2 Not to Exceed draft PM (AUW)



ERDF

Super Cells 9 and 10 Construction

TradeWind Services and its prime subcontractor, DelHur Industries, continue soil removal from super cell 10. Through April 11, 2010, 969,154 cubic yards of an estimated 1.675 million cubic yards of soil have been removed.

Washington Closure Hanford subcontractor TradeWind Services has constructed a test pad made of the soil/bentonite (admix) for the compacted soil liner to be used in super cells 9 and 10. The liner system collects and removes liquid, or leachate, as it drains through the waste materials. The test pad was constructed with the materials, equipment, and procedures that will be used to construct the admix layer of the actual liner system. The liner system consists of the admix layer, a leachate collection layer, a leak detection layer and two high-density polyethylene (HDPE) liners covered with a 3-foot protective soil layer.

The purpose of the test pad is to show that the specified soil density, moisture content, and hydraulic conductivity values can be achieved with the full-scale compacted soil liner.



A pug mill is used to manufacture the soil/bentonite (admix) for the compacted soil liner to be used in super cells 9 and 10 at the Environmental Restoration Disposal Facility.

ERDF (Continued)



TradeWind Services personnel construct a test pad with the materials, equipment, and procedures that will be used to create the admix layer of the actual liner system.

A series of hydraulic conductivity tests are being performed. Plastic measuring tubes will be installed into six boreholes to measure the drop in water levels within the pipes as water penetrates into the liner. The results will be sampled and tested before full-scale liner construction begins.

Facilities and Equipment Upgrades

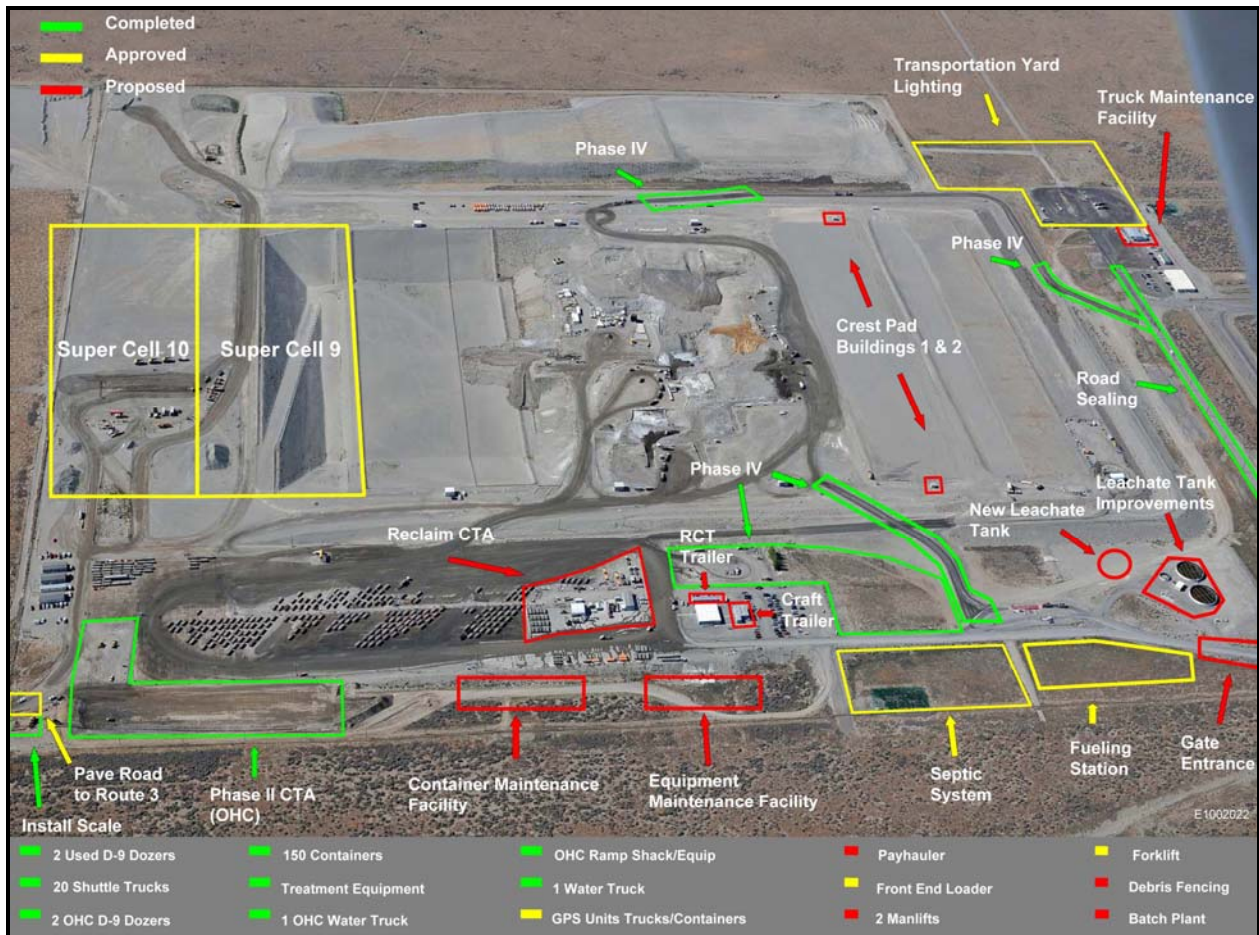
Washington Closure Hanford awarded a \$7 million subcontract to design and construct an operations center and maintenance facilities at the Environmental Restoration Disposal Facility.

The award was made to ELRFowler, a joint venture between ELR Consulting and Fowler General Construction, both local small businesses. ELR Consulting is located in Kennewick, Washington, and Fowler General Construction is located in Richland, Washington. ELRFowler will begin design work immediately with construction to begin this summer and will be completed next year.

Upgrades to the transportation truck maintenance facility include two additional truck bays, a large concrete pad, an exterior awning that will cover two smaller concrete pads, and a

ERDF (Continued)

conference room. Upgrades to the container maintenance facility include a large container repair line, a maintenance shop, a weld area, a lunch area, and an exterior awning over a concrete pad. Upgrades to the equipment maintenance facility include two service lines, an operational storage facility, a large concrete pad, and an exterior awning over a smaller concrete pad.



An aerial view of the Environmental Restoration Disposal Facility.

WCH completed review of Sage Tech's 90% design of the new fueling station. The final design is due to WCH on April 26. Columbia Engineers and Constructors continues to work on the 90% design of ERDF's new septic system. Both companies are based in Richland, Washington.

Pacific Northwest National Laboratory (PNNL) scientists and engineers continue to prepare for a proof-of-concept demonstration of a new container tracking system to be used at ERDF. The onsite demonstration has been rescheduled for April 19. The demonstration will attach Radio Frequency Identification and global positioning system tags to waste containers to show how

ERDF (Continued)

accurately the system can track waste shipments and container location, and generate maintenance reports. WCH also has issued an expression of interest to other companies for the container tracking system.

TradeWind and DelHur completed civil work to expand and upgrade the transportation yard, and WCH is preparing to shift truck-and-pup operations to the new site. WCH also has issued a change notice for electrical work at the site. Bids are due April 15, and work to install the lights is expected to begin later this spring.

Indian Eyes, a Pasco, Washington-based company, is scheduled to deliver a front-end loader to ERDF on April 12. WCH has awarded the subcontract for a heavy-duty forklift to Powers Equipment Company of Pasco, Washington. Delivery is expected in mid-May.

WCH also has issued a work order for Hanford subcontractor Mission Support Alliance (MSA) to make further repairs on three Hanford Site roads. The roads are used to transport waste material to ERDF.

Upcoming Activities

- Continue removal of soil from super cell 10.
- Continue hydraulic conductivity test.
- Dig test pits to characterize soil for new septic system.

Video

[*Admix Test Pad Construction at the Environmental Restoration Disposal Facility*](#)



Profile

When Buddy Bentz served as the computer-aided design and drafting (CADD) supervisor for Washington Closure Hanford's Engineering Services Group, one of his responsibilities was to assign CADD designers to various projects around the Hanford Site.

Last spring, Bentz was asked to fill an opening at the Environmental Restoration Disposal Facility (ERDF). The American Recovery and Reinvestment Act (ARRA) was providing money for "shovel-ready projects," and ERDF was set to receive \$100 million to expand and upgrade the facility.

Bentz did not need to look too far for a candidate. He had the perfect person in mind – himself. "The job was a great opportunity for me," he said. "It gave me a chance to get out of the office and spend some time in the field."

Bentz's title is ERDF Project CADD Lead, but his duties are extensive. He helps develop statements of work and requests for proposals, and he also works on design reviews and oversees field installations.



Buddy Bentz is the Environmental Restoration Disposal Facility's Project CADD Lead, a position that allows him to contribute to several projects at the disposal facility.

Profile (Continued)

“I enjoy working on a lot of different entities,” Bentz said. “I get to work on the design of a project, watch it being built, and see it in operation. It’s very rewarding. I guess you can call me a catch-all guy.”

Rick Caulfield, WCH’s ARRA Project Manager at ERDF, considers Benz’s versatility to be his greatest asset. “Buddy can do just about anything,” Caulfield said. “He’s involved in almost every stage of a project.”

After relocating to ERDF last April, Bentz helped with the redesign of the waste container transfer area and the ramps used for truck-and-pup disposal. Now, he’s focused on the fourth and largest expansion project ERDF has undergone since going online in 1996.

Bentz is part of a team that is planning and will oversee an expansion of the truck maintenance facility, the construction of heavy equipment and container maintenance facilities, and a new operations center. The improvements are necessary to safely accommodate the increasing amounts of cleanup waste disposal by WCH and other Hanford contractors.

A native of New Orleans, Bentz studied civil engineering technology at Southern Tech University in Atlanta. He worked for IT Corporation in various locations early in his career with stops in Baton Rouge and in Denver through the 80s and early 90s, and joined Hanford’s Environmental Restoration Contractor in 1994. He transitioned to Washington Closure Hanford after it assumed River Corridor cleanup responsibilities in 2005.

“Moving out to ERDF came at the right time in my career,” said Bentz, who over the years has contributed to several projects at ERDF including supporting the design of cells 5 and 6 and design/fabrication of the container distance barriers still in use today. “It doesn’t seem like I’ve been here a year. I’ve had a great time, and things are only going to get more exciting with all the new construction.”



618-10 Burial Ground

618-10 Non-Intrusive Characterization/Trench Remediation Project

Nonintrusive characterization activities continue at the 618-10 Burial Ground. Measurements have been collected for 80 cone penetrometers in the trench area and 166 in the vertical pipe unit (VPU) area.

The 618-10 Burial Ground consists of 23 trenches grouped into six areas and 94 VPUs. The VPUs were constructed by welding five bottomless drums together and buried vertically about 10 feet apart. WCH is obtaining radiological characterization data of the VPUs and trenches using a multi-detector probe (MDP), designed for measuring a wide range of radiation sources. The MDP is inserted into the cone penetrometers to measure radiation sources.

A senior management review of soil sampling procedures will be conducted following a soil sampling mock-up. Collecting and analyzing samples will allow the project team to assess the vertical distribution of contaminants in the soils adjacent to and below the VPUs.

Meanwhile, project start-up activities continue for intrusive characterization, which will provide information on the actual form, level of contamination, and the condition of various waste types.

The bid for the nondestructive assay procurement is in review, and an award is expected to be made April 15. Progress also continues on the development of procurement packages for trench remediation labor and equipment. Remediation of the burial ground will include excavation, handling, packaging, and sampling of buried radioactive and chemical materials in a variety of forms including drums, debris, and soil.

Roads, firebreaks, and work areas are under construction, and the boundary fence is being relocated.

The 618-10 Burial Ground operated from 1954 to 1963 and received low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities.



618-10 Burial Ground (Continued)



Work continues on the construction of roads at the 618-10 Burial Ground.

Upcoming Activities

- Continue trench radiological characterization activities.
- Continue work on the project start-up for intrusive characterization.
- Continue roadwork, fence relocation, and construction of drum processing areas and firebreaks.

100-F Area

WCH has answered questions from potential bidders for remediation of the 12 remaining 100-F Area waste sites. The deadline for companies to submit bids has been extended to April 19. WCH also continues work on the excavation permit and the air-monitoring plan.

Remediation will involve the excavation of radioactive and hazardous soil and debris and the packaging of this material into shipping containers. Miscellaneous waste such as drums, bottles, tanks, or vessels may require repackaging and special handling prior to shipping. Oversized debris may require size reduction to facilitate waste loading.

The remediation sites are: 100-F-26:4 process sewer pipeline section; 100-F-26:7 sodium dichromate and sodium silicate pipelines; 100-F-44:8 fuel oil pipelines; 100-F-44:9 process fuel pipeline section; 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; and 100-F-58 asbestos containing surface debris.



F Reactor operated from February 1945 to June 1965. In 2003, it became the third Hanford plutonium production reactor to be placed in interim safe storage. Most of the cleanup work at F Area has been completed. However, during the course of cleanup, the 12 additional waste sites were discovered.

IU 2 & 6 Segment 1

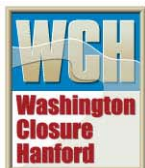
Remediation is complete at three of the six waste sites discovered at IU 2&6 Segment 1 during the 2008 orphan site evaluation. Remediation of sites 600-343, 600-345, and 600-346 is complete. Some remediation work also was completed at site 600-341, which consists of four areas. Completion of remediation of 600-341 and 600-344 will proceed after the historical and cultural review.

Earlier this year a global positioning environmental radiological survey indicated that site 600-342 did not require additional remediation. Work to complete closeout documentation for this waste site continues. The waste site will be officially completed (interim closed out) upon review and approval of the waste site reclassification form by the U.S. Department of Energy, Richland Operations Office (RL) and the Environmental Protection Agency (EPA).

The three fully excavated sites are relatively small and contain mostly surface debris. Site 600-343 consisted of residual ash from burned material and dumped asphalt in an excavated trench, site 600-345 was a stained area with oil filters, site 600-346 consisted of four small fly ash dump areas with metal debris, and site 600-341 consists of four areas that contain dry cell battery remnants and/or battery debris.

Work instructions (waste site specific verification closeout sample plans) are being prepared to determine the number and location of waste site closeout samples including field quality control samples, sampling methodologies, analyte list, and analytical methods. Once the work instructions are reviewed and approved by RL and EPA, verification closeout samples will be collected for laboratory analysis.

Planning continues to complete excavation and loadout activities at the two remaining 600-341 locations and waste site 600-344, pending completion of the cultural resource review process. Cultural resource documentation and recommendations prepared for this remaining scope have been transmitted by RL to the State Historic Preservation Office for review.



Confirmatory Sampling

The team continues to develop sampling instructions for waste sites at the 100-D and 100-IU 2/6 Areas. Its efforts include conducting historical research and consulting regulatory documents, developing a list of contaminants of potential concern to be sampled, and determining potential sample locations for review by DOE and Hanford Site regulators. To date, approximately 40% of the confirmatory work instructions have been issued, which includes DOE and regulator approval. All of the work instructions for the 100-K Area have been approved.

The team is also developing Remove, Treat, and Dispose (RTD) memos for 22 sites that have been determined to require waste site remediation. The memos provide a basis for developing the design for waste site cleanup. Eleven of the memos have been issued and the other 11 will be issued in April.

The request for proposal (RFP) for the Confirmatory Sampling contractor is expected to be issued by April 8, 2010. The scope of the RFP is to support implementation of the confirmatory work instructions (e.g., excavation and sampling). The contract is scheduled to be awarded in May 2010, with field work beginning in July 2010. Sites that pass the confirmatory sampling process will be closed out and no further action will be required under the existing interim record of decision. Those that fail will be recommended for remediation to meet regulatory standards.



General

Mentoring/Training

No significant mentoring/training events this week.

Media, Visits, Press Releases

Washington Closure hosted a tour of ERDF for Carrie Moeller, who works in the Office of General Counsel at DOE Headquarters. The tour was part of Moeller's visit to the Hanford Site. Moeller works as part of the Eastern Energy and Waste Management Unit in the Office of National Environmental Policy Act. She was briefed on ERDF's procedures by the disposal facility's operations manager.

Contracting Actions

- Awarded ERDF Facilities Improvement – Maintenance Facilities

