Issue 37

River Corridor Closure Project

Recovery Act Weekly Report

For the week ending May 23, 2010

Contract DE-AC06-05RL14655

Protecting the Columbia River

E0908027

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 nonintrusive 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.

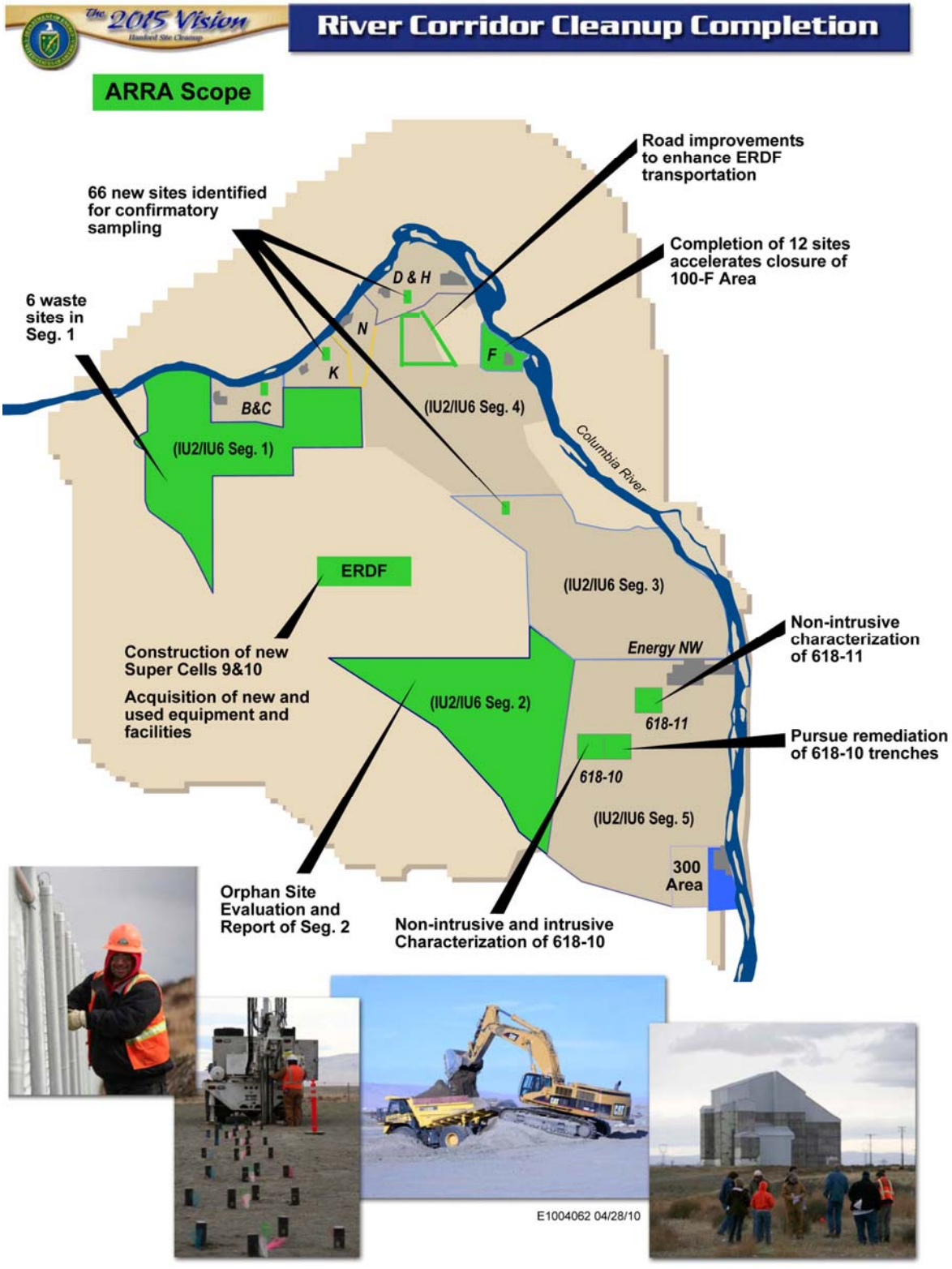
E. Confirmatory Sampling of other new sites

   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 April 25, 2010, WCH and its subcontractors have worked more than 189,913 hours of ARRA scope with no safety incidents.

Hazard Reductions
Dave Brockman, manager of the U.S. Department of Energy (DOE) Richland Operations Office, spoke to WCH employees May 17 about the dangers of beryllium. Brockman was joined by WCH president Neil Brosee and former Hanford worker Tom Peterson.

Peterson, 58, was an ironworker rigger who taught classes to Hanford workers at the HAMMER (Hazardous Materials Management and Emergency Response) training facility. He is now battling chronic beryllium disease (CBD) and must use a walker and breathe oxygen through a tube to his nose.

Peterson said at least 32 Hanford workers – excluding workers who may have been diagnosed after they retired – have CBD. He said about 125 Hanford workers have tested positive for beryllium sensitization, which puts them at risk of developing the disease.

“There are things I loved to do, but I can't do them anymore,” he said. “I don’t want to see anyone else suffer from this ugly disease.”

Peterson originally was diagnosed with sarcoidosis in 1993, and it wasn't until about a decade later that his illness was correctly diagnosed as CBD.

Beryllium is a light-weight durable metal that has widespread industrial applications. Beryllium was used at the Hanford Site during fuel element production and maintenance of selected industrial components and tools. However, it was not widely recognized as a hazard at Hanford until about 20 years ago.

Brockman said Hanford has a strong program to protect workers from exposure to radiation, but much more work needs to be done to protect workers from beryllium. DOE put a Hanford Site-wide beryllium protection program into place this year to replace individual programs created by Hanford contractors. Testing for sensitivity to beryllium at Hanford is voluntary, unless workers are assigned to work in areas where beryllium contamination is known or suspected.

DOE has established a new beryllium website for Hanford. The site includes information about the following:

- Beryllium at Hanford
- Facilities where beryllium was known or suspected to have been used
- Beryllium points of contact on the Hanford Site
- Information on the Chronic Beryllium Disease Prevention Program (CBDPP)
- Sources of information about beryllium
- A link to the Beryllium Awareness Group website
- A link to provide feedback, ask questions, or provide suggestions related to the CBDPP at the Hanford Site.

The Richland Operations Office and the Office of River Protection encourage all employees to visit this site using the following link: http://www.hanford.gov/page.cfm/Beryllium.

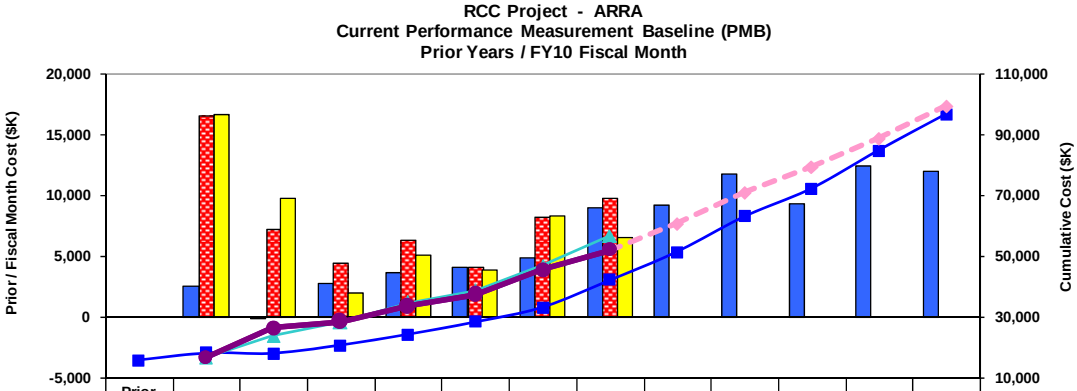
Safety (Continued)

Dave Brockman, manager of the U.S. Department of Energy (DOE) Richland Operations Office, speaks to Washington Closure Hanford employees about the dangers of beryllium.

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

Contract Modification #192 re-obligated $5.4M to the contract that had previously been de-obligated.



	Prior Yrs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
BCWS	15,634	2,468	-217	2,707	3,594	4,057	4,808	8,963	9,122	11,770	9,267	12,374	11,938
BCWP	0	16,515	7,180	4,492	6,344	4,077	8,253	9,803					
ACWP	0	16,626	9,705	1,970	5,044	3,862	8,324	6,460					
ETC									8,601	10,215	8,344	9,443	10,680
CUM BCWS	15,634	18,102	17,885	20,592	24,186	28,243	33,051	42,014	51,136	62,906	72,173	84,547	96,485
CUM BCWP	0	16,515	23,695	28,187	34,531	38,608	46,861	56,664					
CUM ACWP	0	16,626	26,331	28,301	33,345	37,207	45,531	51,991					
EAC	0	16,626	26,331	28,301	33,345	37,207	45,531	51,991	60,592	70,807	79,151	88,594	99,274

ARRA Actuals (includes Proposals 1 and 2)

Apportionment Number	Apportionment Title		Apr 2010	Inception To Date	Cost Authority
RL-0041.R1.2	ERDF Cell Expansion	PMB	3,911	37,114	139,072
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	2,550	14,877	38,907
Sub Total		PMB	6,461	51,991	177,979
Fee			204	2,658	
Total			6,665	54,649	

*** PMB is the Performance Measurement Baseline.**

ERDF

Super Cells 9 and 10 Construction
TradeWind Services and its prime subcontractor, DelHur Industries, continue placing admix in super cell 9. The admix is a soil/bentonite material used for the low-permeability compacted soil layer of the liner and leachate collection system. The admix is manufactured at an onsite pug mill. To date, 20,878 cubic yards of admix has been placed in super cell 9.

TradeWind Services/DelHur Industries personnel continue to place admix on the south slope of super cell 9 at the Environmental Restoration Disposal Facility.

The project team continues to install a leachate transfer pipe from super cell 9 to a new leachate holding tank. The team is also fabricating pipe spools for the new leachate tank. Meanwhile, work continues on the concrete walls for the super cell 9 crest pad building, and foundation work continues for the super cell 10 crest pad building.

ERDF (Continued)

Work continues on the foundation for the super cell 10 crest pad building at the Environmental Restoration Disposal Facility.

Facility and Equipment Upgrades
ELRFowler continues work on the design and submittals for ERDF's new operations and maintenance facilities. ELRFowler is a joint venture between local companies ELR Consulting and Fowler General Construction.

The upgraded transportation truck maintenance 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. The new container maintenance facility will include a large container repair line, a maintenance shop, a weld area, a lunch area, and an exterior awning over a concrete pad. The new 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.

Columbia Engineers and Constructors, a small business based in Richland, Washington, is working on the final design of ERDF's new septic system. The final design is due in early June.

WCH is evaluating Pacific Northwest National Laboratory's (PNNL's) final report on a waste container tracking system for ERDF. Last month, PNNL conducted a proof-of-concept

ERDF (Continued)

demonstration of its system. As part of the demonstration, Radio Frequency Identification and global positioning system tags were attached to waste containers to show how accurately the system tracks waste shipments and container location, as well as generate maintenance reports. WCH will compare PNNL's system with four other systems provided by companies that submitted an expression of interest.

WCH subcontractor George A. Grant is making preparations for the installation of a lighting system at ERDF's recently upgraded transportation yard. The yard is used for truck-and-trailer combinations and other equipment.

Construction of the fueling station, designed by Sage Tech and WH Pacific, is scheduled to begin mid- to late summer. Sage Tech is based in Richland, Washington.

WCH received a 50-ton forklift from Powers Equipment Company of Pasco, Washington. The forklift will undergo an inspection and testing before it is put in service.

Powers Equipment Company, a small local business, delivered a 50-ton forklift to the Environmental Restoration Disposal Facility.

ERDF (Continued)

WCH received bids and conducted a technical review of a Cat 770 Off-Highway truck, which will be used to haul daily operation cover at the facility. Bids on two Genie articulating boom manlifts also were received, and technical reviews are scheduled for next week.

Hanford Site contractor Mission Support Alliance (MSA) continues design and engineering preparations for repair work on three Hanford Site roads. The roads are used to transport waste material to ERDF.

Upcoming Activities

- Continue to manufacture admix and place in super cell 9.
- Review waste container tracking systems.
- Continue design and engineering preparations for repair work on Hanford Site roads.

618-10 Burial Ground

618-10 Nonintrusive Characterization/Trench Remediation Project
Nonintrusive characterization activities were completed at the 618-10 Burial Ground, which operated from 1954 to 1963 and received low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities. The information collected from nonintrusive characterization activities aids in the planning of intrusive characterization and remediation.

Measurements were collected for 100 cone penetrometers in the trench area and 376 cone penetrometers in the VPU area. Low-activity wastes were primarily disposed in trenches, while the moderate- and high-activity wastes were disposed in the VPUs.

Nonintrusive characterization activities concluded at the 618-10 Burial Ground. Measurements were collected for 100 cone penetrometers in the trenches and 376 in the vertical pipe unit area.

The VPUs typically were constructed by welding five bottomless drums together and burying them vertically. WCH obtained radiological characterization data of the VPUs and trenches using a multi-detector probe (MDP) designed for measuring a wide range of radiation sources.

618-10 Burial (Continued)

Last week, the project team collected 10 soil samples that will be used to determine the vertical distribution of contaminants in the soils adjacent to and below the VPUs. The project team collected the samples by driving a cone penetrometer adjacent to and approximately 4 feet below the selected VPUs.

The nonintrusive characterization team will now prepare a characterization report that summarizes all data obtained during the activities.

Meanwhile, intrusive characterization activities continue. The purpose of intrusive characterization is to provide information about the types and quantities of wastes, and the level of contamination. Field operations will be performed with test pits excavated through a series of the burial trenches. This week, mock-up activities began. The heavy equipment operators who will be performing the cross-trenching performed mock-ups using the excavation techniques, instrumentation, and procedure steps required in the work packages, and provided feedback to the work package planners. Work also continues on the development of procurement packages for trench remediation labor and equipment.

An excavator practices removing drums during a mock-up for intrusive characterization at the 618-10 Burial Ground.

618-10 Burial (Continued)

Upcoming Activities

- Nonintrusive characterization team will conduct demobilization activities.
- Continue mockups for intrusive characterization.
- Complete project startup for drum penetration facility setup and operation.

Video

Nonintrusive characterization wrap-up at the 618-10 Burial Ground.

100-F Area

WCH continues to evaluate proposals from four small disadvantaged businesses for the remediation of 18 waste sites at the 100-F Area. The subcontract for remediating the sites is expected to be awarded later this month.

The 18 waste sites include five that were recently added to the work scope for design, excavation, and loadout. The project team is currently working on the design of the five additional sites.

The 100-F Area is the home to the F Reactor, which operated from 1945 to 1965. The experimental animal farm (EAF) operated adjacent to the 100-F Reactor site from 1945 to 1976. 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.

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 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).

100-F Area (Continued)

Three double-wide trailers were delivered to the 100-F Area site this week.

IU 2 & 6 Segment 1

Work continues on waste site-specific verification closeout sample plans to determine the number and location of waste site closeout samples, including field quality control samples, sampling methodologies, analyte lists, and analytical methods. Once the work instructions are reviewed and approved by the DOE Richland Operations Office and the U.S. Environmental Protection Agency, verification closeout samples will be collected for laboratory analysis.

Last month, remediation of five IU 2 & 6 Segment 1 waste sites discovered during the 2008 orphan site evaluation was completed. The remediation sites are:

- 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).

Earlier this year, a global positioning environmental radiological survey indicated that an additional site, 600-342, did not require additional remediation.

IU 2 & 6 Segment 1 encompasses about 23 square miles of the northeastern portion of the Hanford Site, away from the nine surplus plutonium production reactor areas. Segment 1 sites were unique in the fact they were used primarily for housing and support areas. The sites were small and contained mostly surface debris.

Confirmatory Sampling

The team continues to develop sampling instructions for waste sites at the 100-D and 100-IU 2 & 6 Areas, along with a new site in the 100-F Area. Their 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, more than 75% 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. All of the RTD memos have been issued.

The request for proposal (RFP) for the confirmatory sampling contractor was issued on April 20, and the pre-bid meeting was held April 26. 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 June, with field work beginning in July. 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 sites 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
WCH hosted a Leadership Tri-Cities class on a tour of ERDF. Leadership Tri-Cities is a group of representatives from throughout the region that examines important issues and work to facilitate positive change.

Contracting Actions
- Bids evaluated for Cat 770 Off-Highway truck for ERDF.
- Bids received for two Genie manlifts for ERDF.
- Two proposals received for 618-10 geotechnical support.