

River Corridor Closure Project

# Recovery Act Weekly Report

November 3, 2009

Contract DE-AC06-05RL14655

### 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. Details including chemicals of potential concern, specific sample locations, frequencies, sampling protocols, and analytical methods are presented in site-specific work instructions. Samples are then collected and analyzed for radionuclide and/or non-radionuclide chemicals of potential concern to determine if the site requires remedial action.

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)**

# **River Corridor Cleanup Completion** ARRA Scope Pursue remediation of 618-10 trenches and confinement design Non-intrusive characterization of 618-11 Early completion of 12 sites allows 2011 closure of entire 100-F area Road improvements to enhance ERDF transportation 300 Area (IU2/IU6 Seg. 5) (IU2/IU6 Seg. 3) Non-intrusive and intrusive Characterization of 618-10 618-10 (IU2/IU6 Seg. 2) (IU2/IU6 Seg. ERDF Closure of Seg. 2 Acquisition of new and used equipment and facilities Construction of new Super Cells 9&10 66 new sites identified for confirmatory sampling B&C (IU2/IU6 Seg. 1) 6 waste sites in Seg. 1



# Safety

#### **Safety Accomplishments**

As of September 30, 2009, WCH and its subcontractors have safely worked over 66,000 hours of ARRA scope. Through October 25, 2009, there have been no safety incidents.

#### **Hazard Reductions**

WCH's Safety Ownership Program (SOP) was launched as a tool for the RCC project to focus on safety values. Safe work principles for all work, including ARRA, are organized under four SOP tenets:

Tenet 1: Follow the Instruction Tenet 2: Ask the Question

Tenet 3: Fix it Now

Tenet 4: Own the Result.

Last week, WCH introduced the fourth and last SOP Tenet, *Own the Result*. This Tenet focuses attention on the importance of taking ownership of not only the good work performed by WCH workers, but also the processes/procedures under which WCH performs the work. The Guiding Principles that support *Own the Result* are:

- 1. The instructions are yours
- 2. You control the outcome
- 3. Others count on you
- 4. You can make it better.

This week's focus is on the first Guiding Principle of Tenet 4 – *The Instructions are Yours*. On the RCCC--for base and ARRA scope alike--the preparation of work instructions is a team effort. A group of planners, workers, Subject Matter Experts (SMEs), and supervisors develops the scope, defines the work steps, and identifies the hazards and associated hazard controls. When complete, the package is approved by the Responsible Manager who ultimately authorizes the package to be worked.

Once approved, the work instructions become the responsibility of, and are owned by, each and every person involved in the performance of the work.

Problems can occur on the job if the instructions are difficult to follow, confusing or contain errors. When confusion or errors exist, workers are encouraged to help by stopping work, raising the issue, getting clarification and fixing the instructions. It is the responsibility of each and every individual on the RCCC project, whether working base or ARRA scope, to take ownership of the instructions, follow them as written, and to stop work and seek clarification when an issue is identified.



# Contract CLIN 4 (ARRA) 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; Road Upgrades; Remediation of Orphan Sites	\$253.6	\$123.8

### Cost

#### 180 Day Work Plan plus 60 Day Forecast Monthly Estimated Cost Plan Summary (K) Cumulative

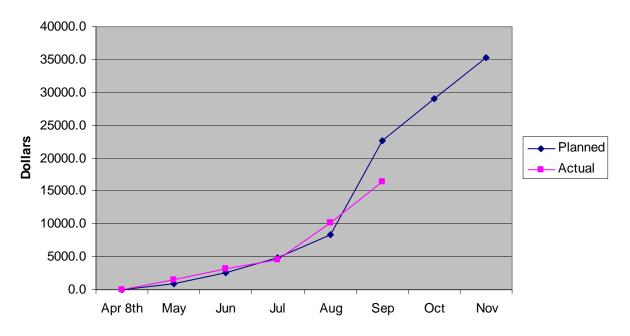
			← 180 Work Plan →					← 60 Day F/C →		
WBS	Scope		Apr 8th	May	Jun	Jul	Aug	Sep	Oct	Nov
1.03.14.75.25-27	618-10 NIC/TRP	Planned	0.0	123.8	258.4	475.0	778.2	1466.6	3241.6	4941.6
		Actual	0.0	392.4	648.1	1058.1	1873.9	2913.5		
		Planned %			5%	10%	16%	30%	66%	100%
		Actual %			13%	21%	38%	59%		
	100-F	Planned						0.0	75.0	150.0
		Actual						0.0		
		Planned %								
		Actual %								
	Confirmatory Sampling	Planned						0.0	69.9	166.7
		Actual						0.0		
		Planned %								
		Actual %								
1.04.01.01.3x	ERDF Cell Expansion/Upgrades	Planned	0.0	252.9	1538.2	3689.1	6831.6	20426.7	24748.4	29041.5
		Actual	0.0	753.9	1746.4	2524.8	7109.2	12197.6		
		Planned %			5%	13%	24%	70%		
		Actual %			6%	9%	24%	42%		
1.06.01.01.02	Mission/General Support	Planned	40.3	571.5	766.7	778.7	791.5	809.1	907.1	1018.7
		Actual	40.3	351.5	739.4	958.4	1140.7	1363.8		
		Planned %			75%	76%	78%	79%		
		Actual %			73%	94%	112%	134%		
Forecast	Total	Planned	40.3	948.2	2563.3	4942.8	8401.3	22702.4	29042.0	35318.5
		Actual	40.3	1497.8	3133.9	4541.3	10123.8	16474.9		
		Planned %			7%	14%	24%	64%		
		Actual %			9%	13%	29%	47%		

\* Not to Exceed = \$123.8m



# **Cost (Continued)**

240 Day Spend Plan (180 Day Work Plan plus 60 Day Forecast)



WCH will report CPI and SPI at 1.00 until the contract modification approving the ARRA baseline is reconciled to the current baseline.



### **ERDF**

#### **Super Cells 9 and 10 Construction**

Under subcontract to Washington Closure, DelHur Industries has excavated 1,060,253 cubic yards of material for super cell 9 (including 263,913 cubic yards of stockpile removal).

Installation of the boundary fence for super cells 9 and 10 continues and is expected to be completed in November.



A DelHur Industries employee works on the boundary fence for super cells 9 and 10 at the Environmental Restoration Disposal Facility. The fence contractor is American Fencing of Hermiston.

#### **Facility and Equipment Upgrades**

The reader board at the third scale, which is being installed on the back road into ERDF, is nearing completion. The scale is expected to be operational by the first week of December.

Richland subcontractor George A. Grant Inc. was awarded the subcontract to pave the back road into ERDF and has begun to mobilize. Paving will improve traffic flow and safety on the road, which has experienced significantly more activity because of the super dumps, construction traffic, and disposal of waste material from other Hanford contractors. The project is expected to be completed by the end of November.



# **ERDF** (Continued)

The engineering staff completed the scope of work and issued a request for proposals to build an onsite refueling station at ERDF. The refueling station will service about 65 project vehicles, ranging from passenger cars to tractor-trailers.

A request for proposals was issued to repair several Hanford Site roads used by ERDF haul trucks transporting radioactive and mixed waste for disposal at ERDF. Bids solicited from companies to repair the roads have been received. Repairs will be made to keep the roads operational through winter, with more extensive repairs to be made for next spring.

One more haul truck was received, bringing the total to nine of 20. Nine more waste containers also arrived, raising the total to 77 of 150 received to date. The trucks are from Peters and Keats of Lewiston, Idaho, and the containers are from Rule Steel of Caldwell, Idaho.

#### **Upcoming Activities**

- Continue excavation of super cell 9. Excavation is on schedule to be completed between December 2009 and January 2010.
- Continue fence installation.



### 618-10 Burial Ground

#### 618-10 Non-Intrusive Characterization/Trench Remediation Project

Project staff finished revising procedures and job hazard analyses in response to comments from the U.S. Department of Energy (DOE) facility representatives and Defense Nuclear Facilities Safety Board representatives.

A dry run of the procedural steps to install cone penetrometers was conducted. The dry run included a verification of the procedural steps and support equipment. The cone penetrometers are steel tubes that will house the instruments used to determine the type, amount, and distribution of radioactive materials within the waste trenches and vertical pipe units.

Road construction is also underway near the burial ground. Road crews will install entrance and exit lanes, pave the median, and restripe the road. The work will provide a safe entrance for heavy equipment and haul trucks. The affected area is located on Route 4 South, about 4 miles north of the 300 Area.



Road construction is underway near the 618-10 Burial Ground, about 4 miles north of the 300 Area. Road crews are working to remove and dispose of the asphalt shoulder and preparing to build entrance and exit lanes.



# 618-10 Burial Ground (Continued)

DOE Richland Operations Office Manager Dave Brockman and DOE-RL Deputy Manager Doug Shoop visited the site and received a briefing on planned activities. The two were shown the equipment that will be used in the installation of the cone penetrometers.

#### **Upcoming Activities**

- Begin installation of cone penetrometers in trenches.
- Continue confinement design criteria development activities.
- Continue soil sampling project startup review development activities.
- Continue reviewing subcontractor submittals.

#### Video

<u>Click here to view the video showing construction</u> of new entrance and exit lanes at the 618-10 Burial Ground.



### 100-F Area

Preparations to begin cleanup work at F Area remain in the early stages. Progress is being made on the design drawings and the integrated hazards evaluation. Historical, cultural, and ecological evaluations are also underway. A request for proposals is expected to be issued in the spring of 2010, soliciting bids from companies to clean up the 12 sites. Cleanup is expected to begin by fall 2010.

# IU 2 & 6 Segment 1

Design planning and historical research were completed. Cultural and ecological reviews continue. An engineering walkdown of the six waste sites were conducted. The engineering walkdown is performed to collect site specific information such as access routes, waste site area, waste excavation and loadout operations areas, and utility interferences. Observations of waste at these sites included the following:

- One site consisted of four areas that contained dry cell battery remnants and/or battery debris.
- Another consisted of four small fly ash dump areas with metal debris.
- Other stained areas consisted of burned material, dumped asphalt, and oil filters.



### **Profile**

Bob Fahlberg does not need to worry about getting his daily exercise. As a field investigator for the waste sites project team at WCH, Fahlberg conducts systematic foot-based land surveys (walkdowns) to identify potential waste sites in the River Corridor.

Under the ARRA work scope, Fahlberg recently led a walkdown of six waste sites at IU2/IU6 Segment 1 to collect site-specific information, such as the waste site dimensions. Results will help determine if a potential site needs to be cleaned up. If so, it will be added to the list for remediation.

Systematic walkdowns are used within reactor/operational areas to identify and document potential waste sites and to follow up on potential sites identified by reviewing historical documents. Geophysical surveys are also used in target areas as part of some field investigations.

Fahlberg and fellow project team member Mark Lambert conduct walkdowns using a reference grid system that measures about 100 by 100 feet. They walk lines 50 feet apart looking for anything that looks suspicious and might need to be investigated. They also use hand-held global positioning system units and digital cameras to record locations.

"We get great coverage, so we don't miss anything," said Fahlberg, who has worked on the project since 1994.

Within inter-areas, such as IU2/IU6 Segment 1, the waste sites project team uses digital high resolution aerial photographs (fly-overs) as well as light detection and ranging imagery to conduct "virtual walkdowns." Areas are then selected to conduct the same type of foot-based surveys used in reactor/operational areas.

"The fly-overs make it much easier to survey the large, remote areas," Fahlberg said. "Walking areas like IU2/IU6 (100-IU-2/IU-6 area covers 91603.68 acres) would take forever."



# **Profile (Continued)**



Bob Fahlberg is a field investigator for Washington Closure Hanford. Fahlberg conducts systematic footbased land surveys to identify potential waste sites in the River Corridor.



# **Confirmatory Sampling**

Initial planning has been completed for confirmatory sampling of 66 sites near the Columbia River. Some sites were used as burn pits and tar dumps. Others were used to store batteries or are suspected of housing dichromate facilities. It's not clear what the others they might contain, which is why sampling is required.

The team continued drafting sampling instructions for waste sites at the 100-D Area, including starting instructions for two new sites: suspect tar-stained soils and soils associated with out-of-service transformers. Development of sampling instructions includes 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. Initial drafts of three other sampling instructions have been completed. The next step is for these drafts to be formatted, edited, and sent for review by Washington Closure subject matter experts and sampling personnel.

Work also continues on developing a scope of work and other procurement documentation. In late 2009 or early 2010, Washington Closure will issue a request for proposals for a company to provide excavation and sampling support for the 66 sites. Those 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 clean up to meet regulatory standards.

Sampling of the sites is expected to begin in spring 2010.



# **Mission Support/General Support**

#### **Accomplishments**

- WCH continued the incorporation of the Phase II ARRA scope into the 2015 Vision Roadmap.
- WCH continued to support ARRA Phase II Technical and Cost Proposal questions.

#### **Upcoming Events**

- Continue the reconciliation of the performance measurement baseline to the executed Phase I contract modification.
- Continue to work on finalizing the Vision 2015 Roadmap, to include incorporation of Phase II ARRA proposal scope. Planned issuance moved to November 2009.
- Continue preparation of Phase II proposed performance measurement baseline.
- Continue to provide support towards Definitization of the Phase II Technical and Cost Proposal.



### General

#### **Mentoring/Training**

No significant activities this week.

#### Media, Visits, Press Releases

An article in the local newspaper is expected to be published soon on progress and readiness to receive increasing volumes of contaminated waste at the Environmental Restoration Disposal Facility.

#### **Contracting Actions**

No significant activities this week.

