



*River Corridor Closure Project*

**Recovery Act  
Weekly Report**

For the week ending March 28, 2010

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.

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.

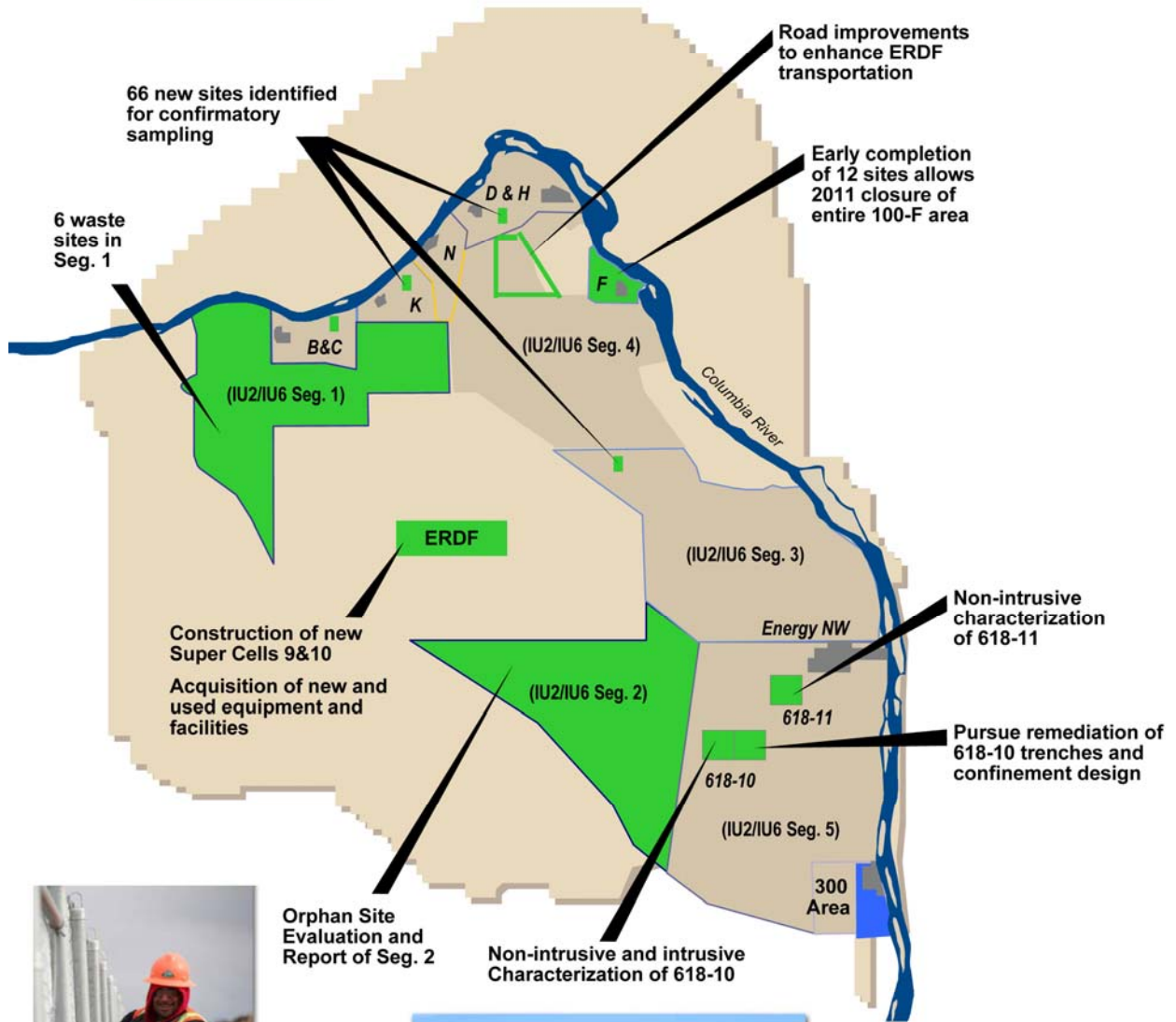


# Overview (Continued)



## River Corridor Cleanup Completion

### ARRA Scope



# Safety

## Safety Accomplishments

As of February 21, 2010, WCH and its subcontractors have worked 152,000 hours of ARRA scope with no safety incidents.

## Hazard Reductions

The River Corridor Closure Project's Hot Topics monthly highlights focused on the following safety issues:

### *Working Toward an Injury-Free Workplace-Incident Severity Reduction*

- Conducted a Performance Assurance meeting with WCH senior staff discussing subcontractor oversight, CSPI and employee recognition, and employee retention as designated focus areas.

### *Incident Severity Reduction*

- Provided safety topics to include: vehicle safety, tire recalls, general workplace hazards, Beryllium awareness, mold, confined space, counterfeit UL labels, industrial signs and barricades, hazard mitigation, and stretching exercises.

### *Training Requirements*

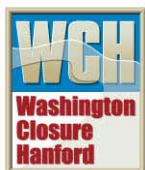
- Continuing to offer fall protection training to subcontractor personnel.
- Conducted Beryllium gap training for all affected workers to provide the information contained in the new site-wide Beryllium program.
- Continuing to develop and document the competent persons listing for fall protection and other OSHA focus areas.

### *Elevated Work Practice improvements*

- Results of the mid-point assessment were entered into the CAM system with corrective actions initiated in both fall protection and the IWCP process.
- Designated the Fall Protection Hazard Analysis form as an attachment to the JHA in the work package.

### *Heat Stress*

- Provided clarification on heat stress requirements and guidelines to both WCH and subcontractors.
- Issued heat briefings to project safety representatives for review and comment.
- Issued change notice to subcontractors with the heat stress guidelines and requirements.

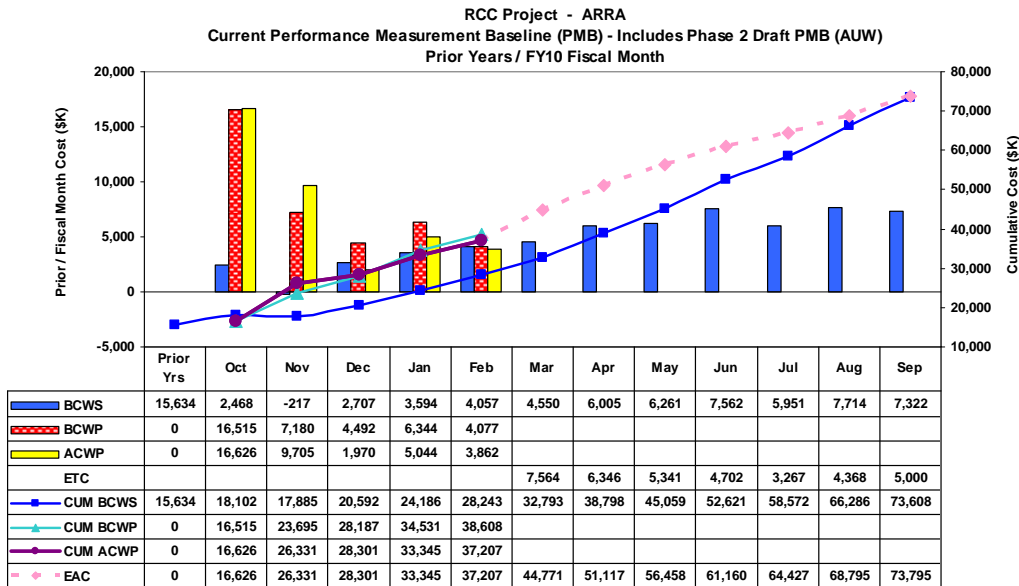




# Cost/Contract Status

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
<b>Sub Total</b>		PMB	3,116	33,255	
		Balance	747	3,953	17,000
Fee			204	2,249	
<b>Total</b>			<b>4,067</b>	<b>39,457</b>	

\* 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 work on super cell 10. To date, 696,661 cubic yards of an estimated 1.675 cubic yards of soil have been removed. An estimated 1.675 million cubic yards of soil will be removed to create the super cell, which will measure 500 feet by 1,000 feet by 70 feet deep.

DelHur is inspecting and calibrating the pug mill at the facility. Operational testing will take place next week. The pug mill is used to make the compacted admix (clay mixture) layer of the liner and leachate collection system for super cells 9 and 10. The liner system will consist of the admix layer, two one-foot thick gravel drainage layers, and two high-density polyethylene liners with associated geotextile and geomembrane layers.

The collection system collects and removes liquid, or leachate, as it drains through the waste materials. Liquids may not be disposed in the facility; however, water from dust suppression and rain and snow will eventually seep through the buried waste and make its way to the leachate collection system.



*DelHur Industries continues to set up a pug mill, which will be used to create the admix layer of the liner system for super cells 9 and 10 at the Environmental Restoration Disposal Facility.*

## ERDF (Continued)

### Facility and Equipment Upgrades

WCH subcontractor Inland Asphalt Company of Richland, Washington, completed work to stripe the newly paved back road to ERDF and install signage. The new scale is now operational. The wireless communication system at the new scale and reader board will allow waste shipments to be entered real-time into the Waste Management Information System (WMIS). The road will help accommodate the traffic caused by an increased amount of waste material generated by WCH and other Hanford contractors.

Inland Asphalt Co. also completed striping and signage installation on two Hanford Site roads used to transport waste to ERDF. Repair work on Route 1 and Federal Avenue was completed last week.

WCH continues to review proposals for the design and expansion of the truck maintenance facility, and the design and build of new equipment and container maintenance facilities.

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

Sage Tec continues to work on the design of the new fueling station. The Richland, Washington-based company was given a one-week extension to submit its 90% design. WCH is now scheduled to begin reviewing the design March 29.

WCH completed the review of the 30% design by Columbia Engineers and Constructors for ERDF's new septic system. The Richland-based company is now working on the 90% design.

TradeWind and DelHur completed civil work to expand and upgrade the transportation yard, which will be used for transportation equipment including truck-and-pups. The transportation yard is operational. Work to install lighting will begin later this spring.

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 is scheduled for April 7. The system would allow for operations personnel to identify how many full and empty containers are available at ERDF and the generator sites.

WCH also issued an expression of interest to other companies for the container tracking system.

Indian Eyes, a Pasco, Washington-based company, is scheduled to deliver a front-end loader to ERDF on April 5. WCH continues to review proposals for a heavy-duty forklift.

### Upcoming Activities

- Continue excavation of super cell 10.
- Continue set up of pug mill for construction of liner and leachate collection system.
- Review proposals for new maintenance facilities.



## ERDF (Continued)



*Work continues at super cell 10 at the Environmental Restoration Disposal Facility.*



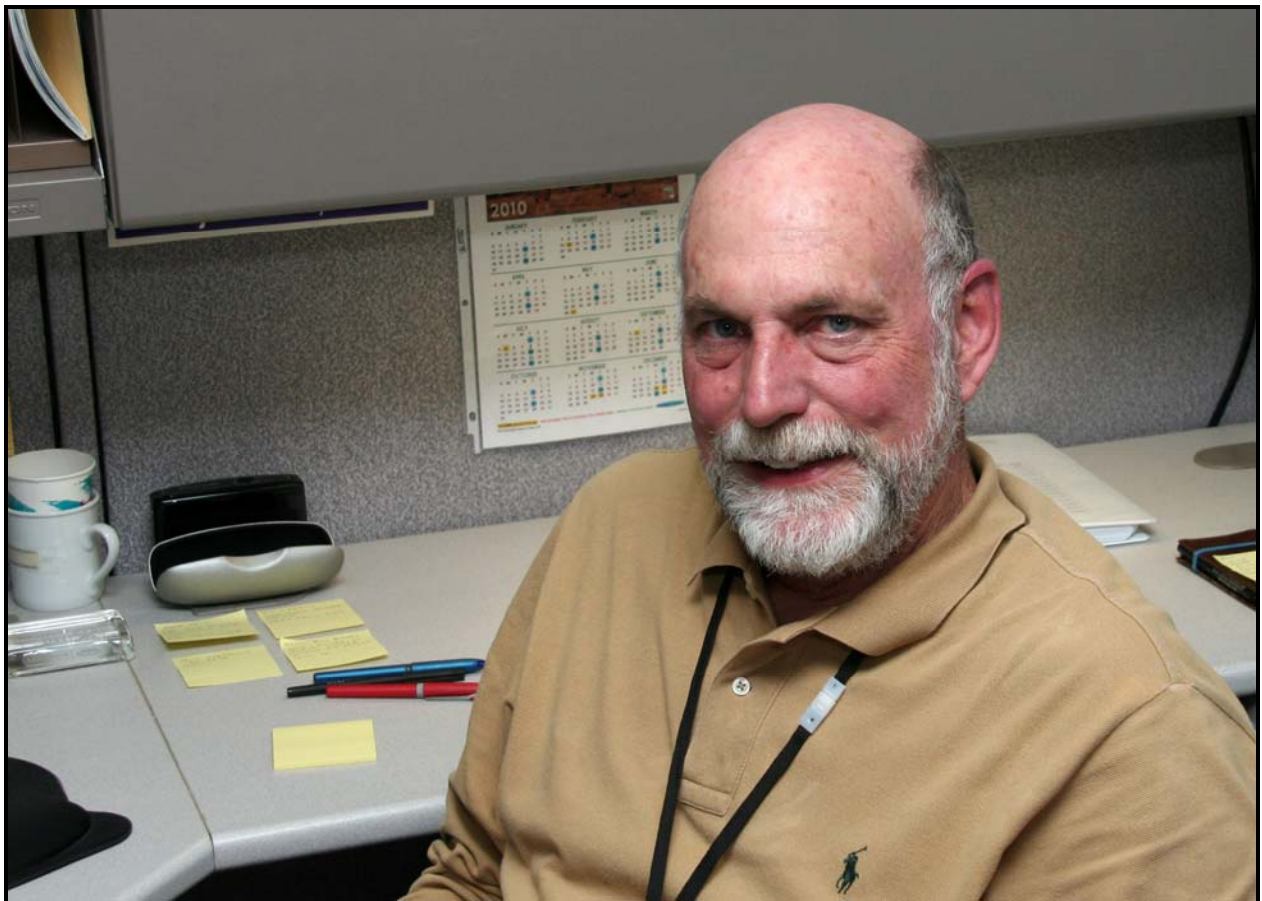
## Profile

It's only fitting that John Wimett began his new job as a construction subcontract engineer at the Environmental Restoration Disposal Facility (ERDF) on St. Patrick's Day.

"Yeah, I feel a little lucky. This job allows me to use the skills I've developed over the years to tackle some new and exciting challenges," Wimett said of his new position, which supports projects funded by the American Recovery and Reinvestment Act (ARRA).

Wimett has worked in the engineering design field since 1979 when he joined the U.S. Department of Energy to work on the centrifuge project in Southern California. He later worked in the aerospace industry for TRW and Hughes Aircraft, and for British Nuclear Fuels on the initial design of the vitrification plant.

Wimett joined the Environmental Restoration Contractor in 1996, and transitioned to the Field Remediation team after Washington Closure Hanford assumed River Corridor cleanup responsibilities in 2005.



*John Wimett worked for the Field Remediation team before being hired as a construction subcontract engineer at the Environmental Restoration Disposal Facility.*

## Profile (Continued)

Wimett's new job description is wide-ranging. His duties include tracking contract submittals, change orders, request for proposals, and technical evaluations. He also will monitor contractors in the field.

"That's another reason I was attracted to this job – I get to spend time outside," said Wimett, who studied architecture at Washington State University. "I've got a nice mix of office work and field work."

Wimett is joining the ERDF team as activity reaches an all-time high at the disposal site, which accepts low-level radioactive, hazardous, and mixed waste. Record numbers of waste containers are being disposed on a regular basis, and the excavation of super cell 10 is well underway. The construction of the liner and leachate systems of super cells 9 and 10 also is set to begin this spring.

Wimett's work will focus on the many upgrades the disposal facility has in the works. ERDF is planning to expand its truck maintenance facility, and construct new equipment and container maintenance facilities, as well as a new operations center. A new fueling station and a new septic system also are in design stages. All of these projects are supported by Recovery Act dollars.

"It's definitely an exciting time to be working here," Wimett said. "There's a lot going on, and I look forward to being a part of it. And for me, it's a nice change. It's like I'm beginning a new career."



## 618-10 Burial Ground

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

Nonintrusive characterization activities continue at the 618-10 Burial Ground. Data have been collected for 56 cone penetrometers in the trench area and 154 in the vertical pipe unit (VPU) area.

The 618-10 Burial Ground consists of 23 trenches and 94 VPUs, which were constructed by welding five bottomless drums together and buried vertically about 10 feet apart. The site operated from 1954 to 1963 and received low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities.

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.

Preparations continue for intrusive characterization, which will provide information on the actual form, level of contamination, and the condition of various waste types. Work crews began constructing a road around the burial ground, and also started to build a firebreak. A buried tank was discovered about 15 feet outside the northeast site fence. Work planning is in progress to further investigate this discovery.

### Upcoming Activities

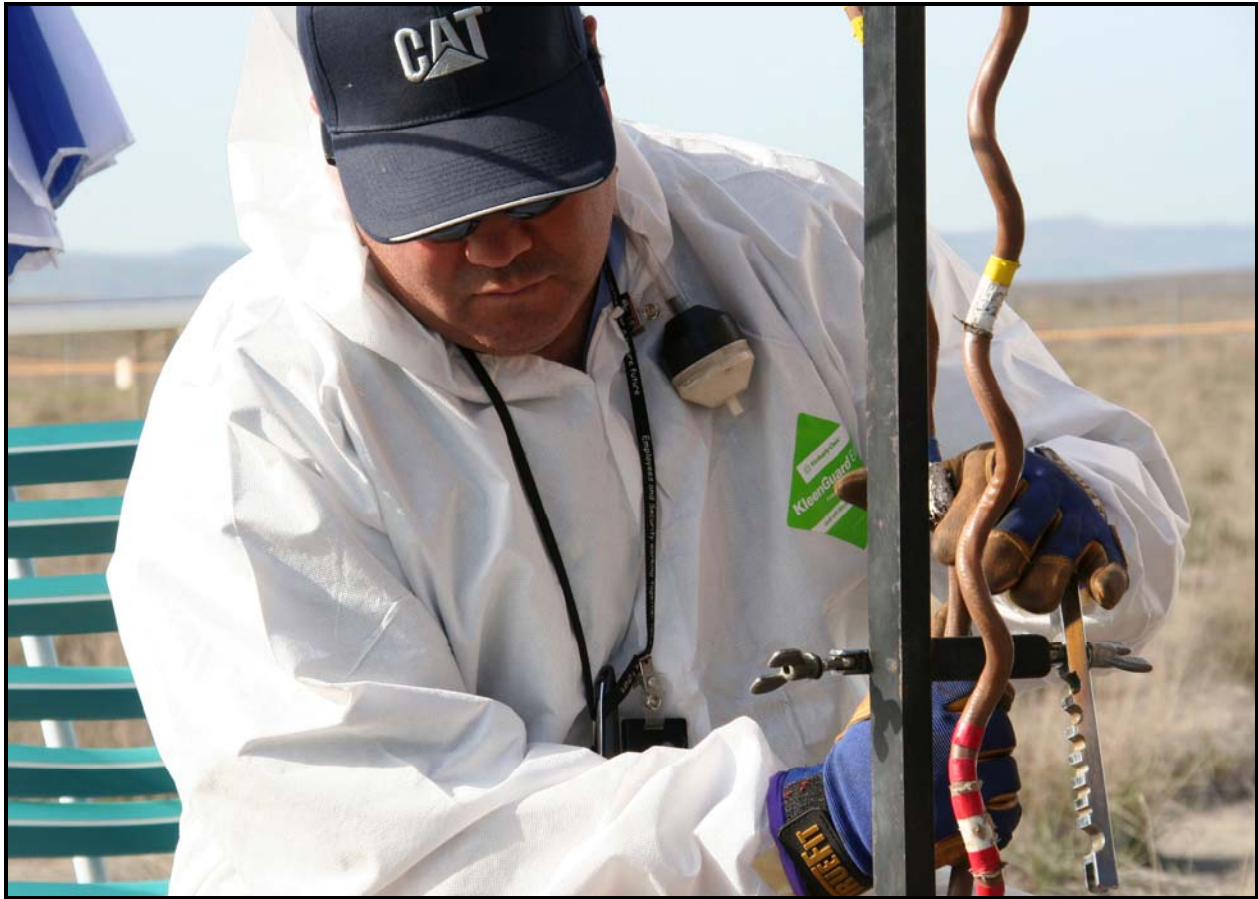
- Continue trench radiological characterization activities.
- Continue soil sampling project startup review activities.
- Continue work on the project start-up for intrusive characterization.
- Continue work on the procurement packages for trench remediation.

### Video

[\*Radiological Characterization at the 618-10 Burial Ground\*](#)



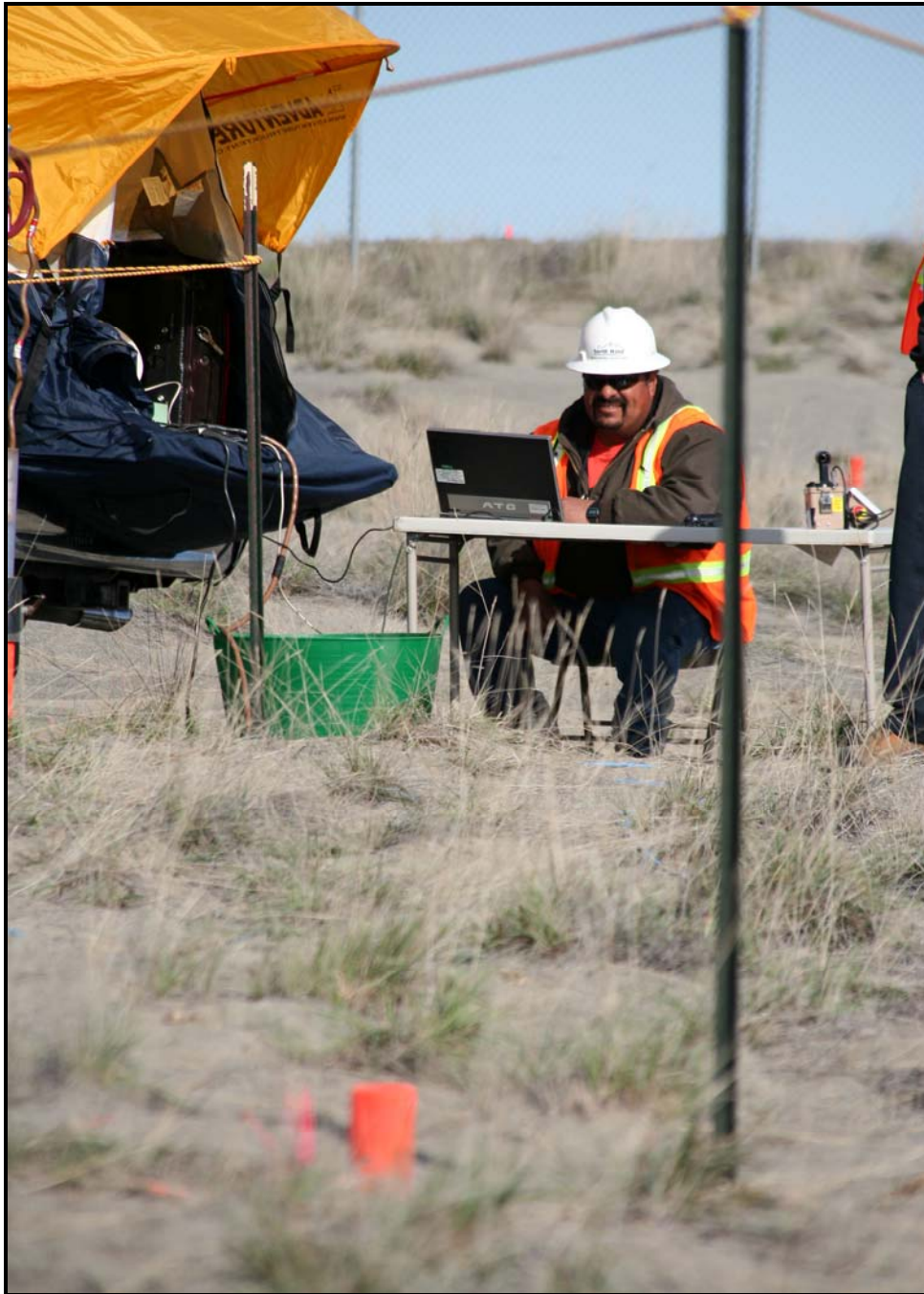
## 618-10 Burial Ground (Continued)



*A North Wind, Inc. employee retrieves a multi-detector probe during radiological characterization in the trench area at the 618-10 Burial Ground.*



## 618-10 Burial Ground (Continued)



*A North Wind, Inc. employee inputs data during radiological characterization in the trench area at the 618-10 Burial Ground*

## 100-F Area

WCH issued a request for proposal (RFP) for remediation of the 12 remaining 100-F Area waste sites to interested, suitably experienced, and qualified companies. A pre-bid presentation was conducted, and potential bidders were taken on a field tour of the waste sites. The purpose of the field tour, or walkdown, was to develop a common understanding of the remediation scope of work and provide the best available information to support bids.

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.



*Washington Closure Hanford conducted a site tour for companies interested in remediating the 100-F Area waste sites.*

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

## 618-10 Burial Ground (Continued)

layer; 100-F-56 scattered surface debris, stains; 100-F-57 buried pipeline cradle debris; and 100-F-58 asbestos containing surface debris.

### 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.

Last month, a global positioning environmental radiological survey indicated that site 600-342 did not require additional remediation. Closeout documentation for this waste site is under way and consists of a waste site reclassification form (WSRF) with attached documentation. The waste site will be officially completed (interim closed out) upon review and approval of the WSRF 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 has been initiated 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

Work continues to develop sampling instructions for waste sites at the 100-D, 100-K, and 100-IU 2 & 6 Areas. The team's 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 25% of the confirmatory work instructions have been issued, which includes DOE and regulator approval.

The team also is 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 RTD memos have been issued, and the remaining eleven memos will be issued by the end of April.

WCH will issue an RFP for a company to support implementation of the sampling work instructions (e.g., excavation and sampling) in late March. 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**

No significant media events this week.

### **Contracting Actions**

No significant contracting actions this week.

