Issue 40

River Corridor Closure Project

Recovery Act Weekly Report

For the week ending June 13, 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 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.

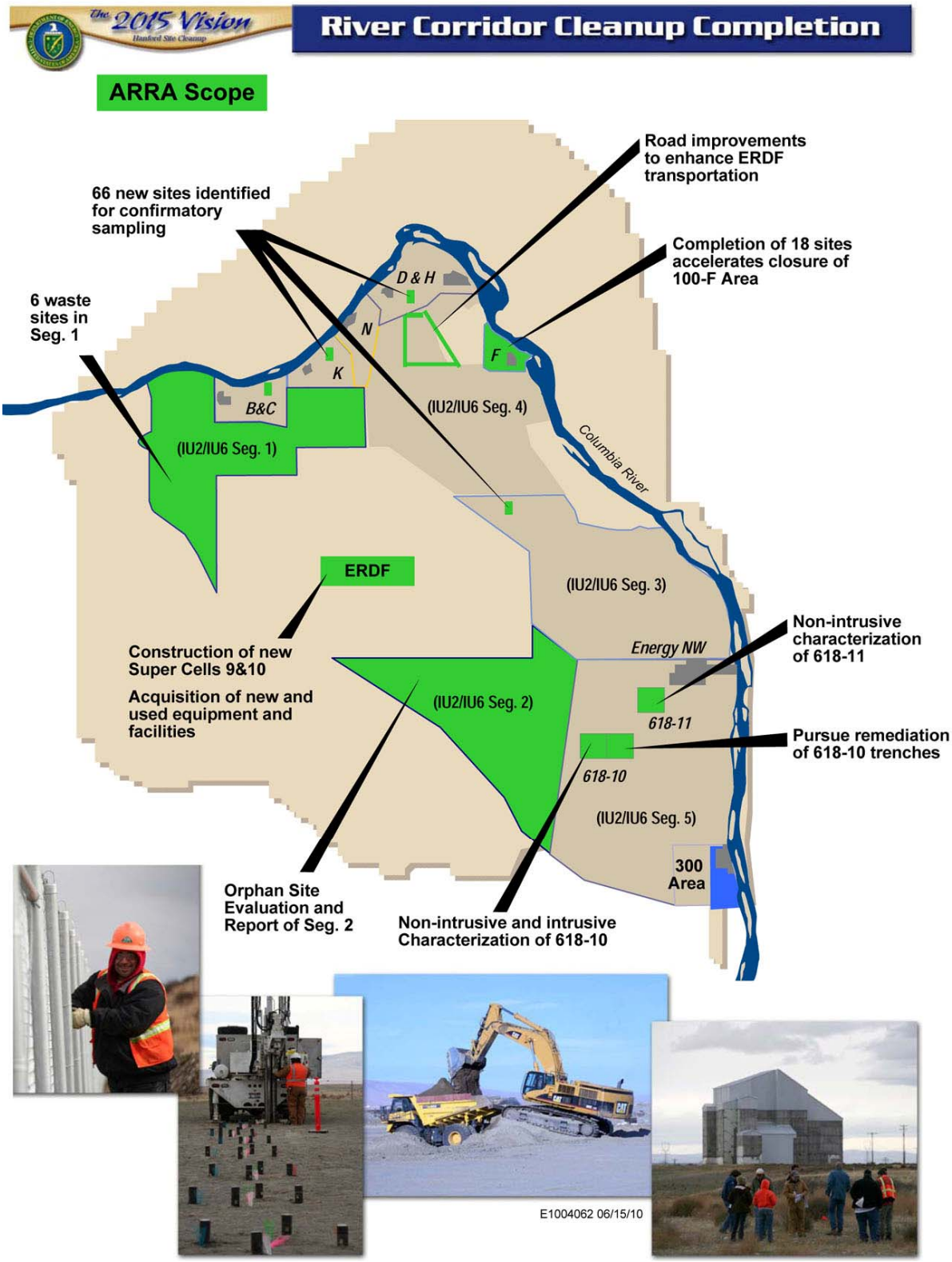
E. Confirmatory Sampling of other new sites

   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 May 23, 2010, WCH and its subcontractors have worked more than 207,291 hours of ARRA scope with no safety incidents.

Hazard Reductions
The River Corridor Closure Project's "Take 5 for Safety" is used to share safety information and lessons learned with all WCH employees. Last week's edition focused on the worker's individual right and responsibility to take a "Stop Work" for the protection of those involved.

The DOE Stop Work Procedure and Policy is endorsed by all senior managers and Hanford Site labor organizations. There are four crucial elements identified in the policy. They are as follows:

1. "Stop Work" Responsibility. Every site employee, regardless of employer, has the responsibility and authority to stop work immediately, without the fear of reprisal, when the employee believes a situation exists that places himself/herself, a coworker(s), or the environment in danger. "Stop Work" is defined as stopping the specific task(s) or activity that poses danger to human heath and/or the environment.

2. Reporting Unsafe Conditions. Employees are expected to report any activity or condition which he/she believes is unsafe. Notification should be made to the affected worker(s) and then to the supervisor or his/her designee at the location where the activity or conditions exists. Following notification, resolution of the issue resides with the responsible supervisor.

3. Right to a Safe Workplace. Any employee who reasonably believes that an activity or condition is unsafe is expected to stop or refuse work without fear of reprisal by management or coworkers, and is entitled to have the safety concern addressed prior to participating in the work.

4. Stop Work Resolution. If an employee has a stop-work issue that has not been resolved through established channels, he/she should immediately contact his/her Safety Representative or Union Safety Representative. Alternatively, he/she may contact his/her Employee Concerns Program or the DOE Concerns Program.

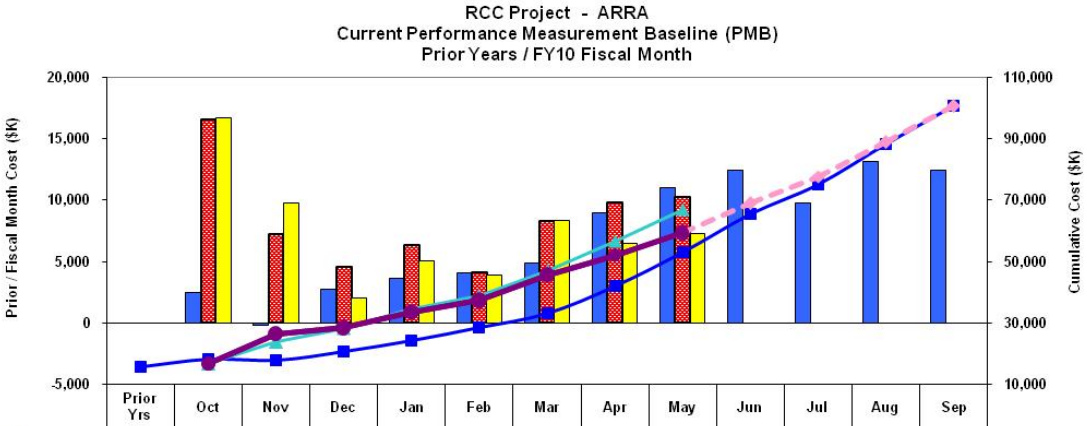
Any time an employee feels unsafe, sees something that looks unsafe, or hears something that sounds unsafe, he/she should call a "Stop Work."

When an employee suddenly thinks of something that simply didn't make sense, he/she should get with coworkers, Safety Representative, Industrial Hygienist, Radiological Control professionals, or anyone else involved and make sure everyone is protected and safe. WCH will never allow negative consequences against any employee for calling a "Stop Work."

Employees must remember, "If it doesn't feel right, it probably isn't."

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



	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	11,018	12,358	9,747	13,098	12,439
BCWP	0	16,515	7,180	4,492	6,344	4,077	8,253	9,803	10,258				
ACWP	0	16,626	9,705	1,970	5,044	3,862	8,324	6,460	7,202				
ETC										9,694	8,735	11,195	11,810
CUM BCWS	15,634	18,102	17,885	20,592	24,186	28,243	33,051	42,014	53,032	65,390	75,137	88,235	100,674
CUM BCWP	0	16,515	23,695	28,187	34,531	38,608	46,861	56,664	66,922				
CUM ACWP	0	16,626	26,331	28,301	33,345	37,207	45,531	51,991	59,193				
EAC	0	16,626	26,331	28,301	33,345	37,207	45,531	51,991	59,193	68,887	77,622	88,817	100,627

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

Apportionment Number	Apportionment Title		May 2010	Inception To Date	Cost Authority
RL-0041.R1.2	ERDF Cell Expansion	PMB	5,104	42,217	139,072
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	2,098	16,976	38,907
Sub Total		PMB	7,202	59,193	177,979
Fee			3,207	5,865	
Total			10,409	65,058	

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

ERDF

Super Cells 9 and 10 Construction
WCH subcontractor TradeWind Services and its subcontractor, DelHur Industries, began installing the secondary 60-mil high-density polyethelene (HDPE) geomembrane liner of the liner and leachate collection system for super cell 9.

The system collects and removes liquid, or leachate, as it drains through the waste materials. The liner system consists of the admix layer, a leachate collection layer, a leak detection layer, and two HDPE geomembrane liners covered with a 3-foot protective soil layer.

TradeWind Services/DelHur Industries personnel roll a section of 60-mil high-density polyethelene geomembrane liner down the slope of super cell 9 at the Environmental Restoration Disposal Facility.

ERDF (Continued)

Each roll of HDPE measures 540-feet long by 22-feet wide. The rolls are heat welded together to cover the super cell, which measures 500 feet by 1,000 feet at the base.

The project team also continues 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. Placement of the admix in super cell 9 is 50% complete.

Work also continues on the installation of the leachate transfer pipe from super cell 9 to a new leachate holding tank. Three of the six sections of transfer pipe have been installed. The crest pad buildings for super cells 9 and 10 also are under construction.

ERDF (Continued)

TradeWind Services/DelHur Industries personnel continue to place admix in super cell 9 at the Environmental Restoration Disposal Facility. About 50% of the admix layer has been placed.

Facility and Equipment Upgrades

Members of WCH's information technology organization met with Pacific Northwest National Laboratory (PNNL) personnel to define the scope of work for a new waste container tracking system PNNL designed for ERDF. WCH is expected to award a subcontract to PNNL in mid-July. The system will accurately track waste shipments, equipment, and generate real-time reports. PNNL conducted a proof-of-concept demonstration of its system in April. 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 has reviewed ELRFowler's 30% design of ERDF's new operations and maintenance facilities. ELRFowler, a joint venture between local companies ELR Consulting and Fowler General Construction, will submit its 90% design in mid-July. 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

ERDF (Continued)

facility will include two service lines, an operational storage facility, a large concrete pad, and an exterior awning over a smaller concrete pad.

WCH subcontractor George A. Grant will begin construction next week of a new lighting system at ERDF's recently upgraded transportation yard. The transportation yard is used for truck-and-trailer combinations and other equipment.

WCH continues to evaluate Columbia Engineers and Constructors' final design of ERDF's new septic system. WCH will provide comments to the design team next week. Columbia Engineers and Constructors is a small business based in Richland, Washington.

WCH awarded a contract to Indian Eyes, LLC, for a Cat 770 off-highway truck and another contract to Powers Equipment Company for two Genie articulating boom manlifts. Both are small local businesses. The equipment is scheduled to be delivered to ERDF in mid-July.

Hanford Site contractor Mission Support Alliance (MSA) is preparing to conduct repair work on three Hanford Site roads. Design work has been completed for Routes 1 and 2, and continues for Route 4. Bids have been issued for construction work on Route 1. The roads are used to transport waste material to ERDF.

WCH received bids for two concrete mixer trucks and a concrete pump truck in support of a new batch plant. The batch plant will manufacture concrete used to mix with debris, ensuring no void space during disposal operations.

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

A change notice has been issued to TradeWind Services for the construction of weather enclosures for crest pad buildings 1 and 2.

Upcoming Activities

- Continue to manufacture admix and place in super cell 9.
- Continue construction of the liner and leachate collection system for super cell 9.
- Continue work on the crest pad buildings for super cells 9 and 10.

Video

Super Cell 9 Liner Construction at the Environmental Restoration Disposal Facility.

Profile

It didn't take long for Brett Leverson to learn one of the main reasons the Environmental Restoration Disposal Facility (ERDF) operates so smoothly – teamwork.

Leverson, an accounting major at Washington State University, was expecting to work in project controls when he began his summer internship last month. Soon after, however, he was assigned to work for Rick Caulfield, ERDF's project manager for facilities and equipment upgrades.

Washington Closure is preparing to build three maintenance facilities and an operations center, so there is plenty of work to fill Leverson's plate. The new facilities are part of a $100 million expansion and upgrade of ERDF funded by the American Recovery and Reinvestment Act.

"When I first got here, I didn't know much about ERDF," said Leverson, a Richland native who recently completed his sophomore year at WSU. "But the people here are very welcoming and willing to answer any questions, and I've learned a lot so far about how ERDF operates."

Brett Leverson, who recently completed his sophomore year at Washington State University, is an intern at the Environmental Restoration Disposal Facility.

Profile (Continued)

Leverson acts as the middle man between the maintenance facility operations teams and ELRFowler, which is designing and building the new facilities. He works with the facilities teams to determine what services – electrical, water, compressed air, oil, grease – they will require in the new buildings and provides the information to ELRFowler for design.

Leverson's duties also include researching equipment for the new facilities. He checks out specifications and costs, and reports the information to Caulfield.

"Brett has a great attitude," Caulfield said. "Even though his background is in accounting, he's eager to learn as much as he can about the construction management business. It's a busy time out here, and he's jumped right in and helped in the design process."

Leverson always is ready for a challenge. He is enrolled this fall in an international business program at the University Center Cesar Ritz in Brig, Switzerland.

But for now, Leverson is focused on ERDF, which is experiencing increasing activity. A year ago, the waste operations team disposed an average of 150 waste containers a day. Today, an average approaching 500 is being disposed on a daily basis. Construction of the new maintenance facilities is scheduled to begin this summer.

"I'm glad to be here," Leverson said. "I've had the opportunity to work on some cost analysis projects and also in project management. It's been a great experience."

618-10 Burial Ground

618-10 Non-Intrusive Characterization/Trench Remediation Project
Preparations continue for intrusive characterization at the 618-10 Burial Ground. Field operations are scheduled to begin later this month.

The project team completed assembly of a drum penetration facility. Because unearthed drums might contain potentially flammable material, they will be opened in an onsite penetration facility with negative air pressure and remotely operated equipment. A sand hopper will be used to quench chemical reactions. The project team also completed emergency drills and continues to develop procurement packages for trench remediation labor and equipment. The team also continues mock-ups for intrusive characterization. Mock-ups are performed using the techniques, instrumentation, and procedure steps required in work packages.

Intrusive characterization will provide information about the types and quantities of wastes, and the level of contamination. During field operations, test pits will be excavated through a series of burial trenches.

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 vertical pipe units (VPUs). The VPUs were constructed by welding five bottomless drums together and buried vertically about 10 feet apart.

Available records indicate that the burial ground was used to dispose of cardboard boxes of low-level waste and miscellaneous laboratory debris including bottles, boxes, filters, and aluminum cuttings; spent fuel fragments in small juice cans; radiologically contaminated equipment and laboratory instruments; and high-level liquid waste sealed in drums.

618-10 Burial Ground (Continued)

Stakes mark the trench locations at the 618-10 Burial Ground. Intrusive characterization field activities are scheduled to begin later this month.

618-10 Burial Ground (Continued)

Work continues setting up the staging area at the 618-10 Burial Ground.

618-10 Burial Ground (Continued)

The drum storage area has been set up in the staging area at the 618-10 Burial Ground.

The nonintrusive characterization report is being developed and is scheduled to be issued in mid-August. Nonintrusive characterization field activities were completed May 20. 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 data collected during nonintrusive characterization activities are being used to develop and evaluate safe and effective strategies for intrusive characterization and remediation.

Upcoming Activities

- Continue work on procurement packages for trench remediation labor and equipment.
- Complete project start-up for intrusive characterization.
- Continue development of nonintrusive characterization report.

100-F Area

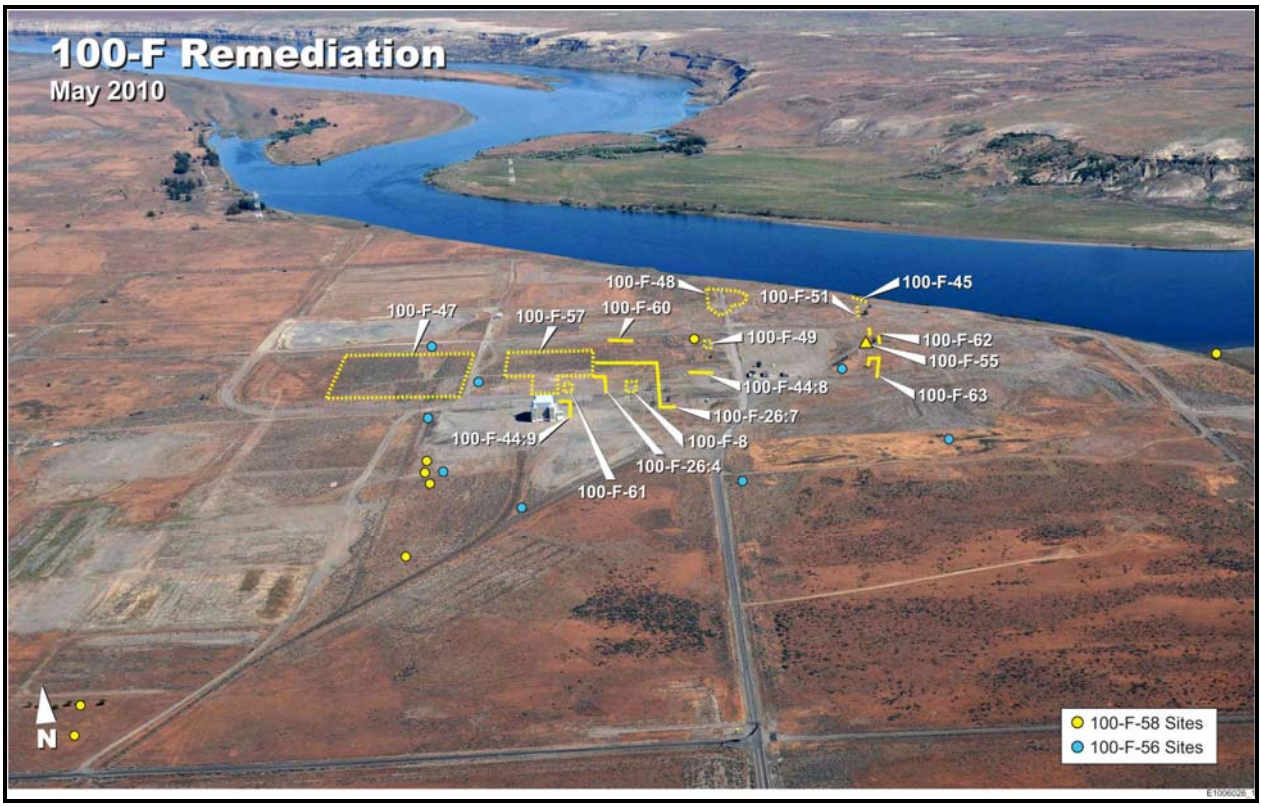
The technical evaluation has been completed and WCH is preparing to award a subcontract for the remediation of 18 waste sites at 100-F Area. Mobilization is scheduled to begin in July.

The integrated hazard evaluation is being reviewed by subject matter experts and the fire protection evaluation also is under review. Work also continues on the waste profile and sampling of 100-F surface staining sites to support waste profile development.

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.

Most of the cleanup work at F Area was completed in 2008. WCH remediated 53 waste sites near the Columbia River; however, during the course of cleanup the additional waste sites were discovered.



An aerial view of 100-F Area shows the locations of the 18 waste sites.

100-F Area (Continued)

The 18 sites that require remediation are as follows:

- 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).

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.

Remediation of five IU 2 & 6 Segment 1 waste sites discovered during the 2008 orphan site evaluation was completed in April. The remediation sites are as follows:

- 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

WCH has awarded a subcontract to TerranearPMC to perform confirmatory sampling at multiple locations within the 100-D, 100-IU 2 & 6, 100-F, and 100-K Areas. TerranearPMC is a small disadvantaged business based in Irving, Texas, with an office in Richland, Washington. It provides environmental remediation and compliance, radiological waste management, engineering design, and construction management.

A pre-construction meeting is scheduled for next week, and field work is scheduled for July. Confirmatory sampling will involve trenching, excavation, backfilling, and sampling to determine the nature and extent of any contamination present. 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.

The project 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. The team is 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 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. All of the RTD memos have been issued.

General

Mentoring/Training
No significant mentoring/training events this week.

Media, Visits, Press Releases
An Environmental Management review team from DOE-Headquarters visited Hanford to review all ARRA-funded projects. WCH conducted a tour and briefing of ERDF and the 618-10 Burial Ground.

Contracting Actions

- Change notice issued for ERDF batch plant design.
- Request for Equitable Adjustment negotiated for ERDF's access road paving, pending management approval.
- Confirmatory Sampling subcontract awarded to Terranear PMC, LLC.