

October 2011  
Volume 7, Issue 8

# C<sup>the</sup> Current

River Corridor  
Closure Project

## In This Issue:

*United Way Goes Beyond the Needs of Under-Privileged*

*CRCTA Pick is no Treat*

*VPP Champion Resides at the River Corridor*

*Sampling Critical to Site Closeout and Closure*

*WCH Appreciates You*

*Chrome Treatment Creates Cost Savings*

*Service Awards*

*New Hires*

## United Way Goes Beyond the Needs of Under-Privileged

"It used to be that we thought people who needed United Way were under-privileged or in some way financially disadvantaged," said Eric Kinnunen, chairman of the 2011 River Corridor United Way campaign.

"Today, it's not uncommon to know friends and family who are being served by United Way agencies, or even for us to be taking advantage of those services ourselves," said Eric. "You don't have to be under-privileged to have a son or daughter participating in Boys and Girls Club after-school programs, or to have an elderly parent who requires end-of-life care or a friend or family member who is a victim of sexual assault."

Two weeks into this year's campaign, which ends November 17, Eric said we are well

more than half way toward our goal of \$152,011. "The response so far this year has been excellent," he said. "I try to go to as many of the United Way presentations as I can. I've been impressed by the stories that people have shared with me about how United Way has touched their lives or helped them in a difficult situation. I hope we can share some of those with you in the coming weeks," Eric said.

As of October 27, Washington Closure and Eberline Services Hanford employees have pledged \$98,014. "That's an excellent start. Let's keep up the good work," he said.

If you haven't received a pledge form or want to change your pledge, please see your project or function United Way co-chair or coordinator or contact Eric by email or phone at 372-9112.



Editor: Tari Birch

Contributing authors: Tari Birch, Todd Nelson, Peter Bengtson and Mark McKenna.

Please submit story ideas or comments to *WCH Communications*.

The editor reserves the right to edit any submitted articles for length and clarity.

**FACTOID**

The crane cables will be attached to the CRCTA by two fasteners that weigh 400 pounds each.



Dan Beckworth, WCH subcontract engineer, peers in the containment tent where the CRCTA tank is prepared for removal at the end of October.

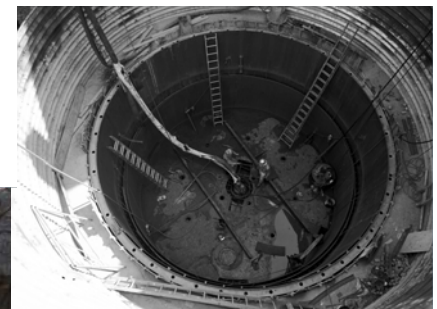
**CRCTA Pick is no Treat**

The 300 Area skyline has seen tremendous change, but on Friday crews will be removing a significant piece of equipment from a 60-foot deep caisson below where the 337-B Building stood.

One of the largest crane lifts in the 300 Area is planned this weekend. The 122 ton Composite Reactor Components Test Activity (CRCTA), supported a sodium-environment test system for molten sodium equipment to be used at the Fast Flux Test Facility. The stainless steel tank is 19-feet wide and 40-feet tall. During the lift, the tank will be encapsulated in a heavy gauge plastic bag that weighs 700 pounds.

Before the CRCTA could be lifted, workers removed an asbestos liner from the tank that weighed 15,000 pounds.

The next cleanup steps include lifting the Guard Vessel that shielded the CRCTA; it only weighs 20 tons. Workers will then remove hazardous asbestos boards inside the caisson over the next few months.



Above: Workers prepare the caisson where the CRCTA would rest and test equipment for FFTF.



Left: The containment tent surrounding the CRCTA protected the environment while asbestos shielding was removed from around the 40-foot long tank.

**Service Awards**

The following individuals reached a milestone in their careers.

**5 Years:**

Edmundson, Thomas R.

**10 Years:**

Jewell, Patrick T.  
Buechler, Matthew P.  
Bigby, Daniel A.  
Clary, Jeffrey D.  
Flores, Juan A.

**20 Years:**

Koeller, Pamela J.

**25 Years:**

Renz, Tim W.

**30 Years:**

Armatrout, Jeffrey F.  
Quinn, Tim S.

**VPP Champion Resides at the River Corridor**

Congratulations are in order for Don King, HAMTC representative for the River Corridor team. He received the DOE - Voluntary Protection Program Champions Award-at the National VPP Conference in August. This award is the highest honor that DOE VPP bestows on an individual. It is given to those individuals for outstanding mentoring, innovation, and above-and-beyond assistance to DOE VPP HQ personnel team members during on-site reviews.

Don has mentored, WTP, CHPRC, Nevada Test Site, MSA, and is the HAMTC WCH representative on the Hanford VPP Champions Committee. While attending the national conference, Don co-presented an Employee Involvement presentation.



Carol Johnson, WCH President with Don King, HAMTC Representative and recipient of the VPP Champions Award.

## New Hires

WCH welcomes the following new employees who have joined our project:

Doug Ahmer: WCH, Estimating Mgr – Project Integration

## Bump and Roll

Acevedo, Benjamin – Ironworker

Arteaga, Albert – D&D

Axelsson, Craig – D&D

Bangs, Daryl – Millwright

Barnes, Cleve – Crane Op

Barnes, Scott – D&D

Bass, Nicholas – Truck Driver

Bates, Paul – Truck Driver

Bennett, Ryan – D&D

Bishop, Randall – Millwright

Brown, Dennis – Crane Op

Brownlee-Turner, Jason – Truck Driver

Burroughs, Jeffrey – D&D

Cartagena, Vladimir – Truck Driver

Clark, Chris – Insulators

Cockburn, Ernest – Plumber

Collins, Nicholas – D&D

Cronrath, Jared – Truck Driver

Daugherty, Thomas – Insulators

Debrine, Kenton – D&D

Dedmon, Michael – Truck Driver

Dehmer, Christopher – Lube & Tireman

Fernandez, David – D&D

Fero IV, Ernest – Truck Driver

Fish, Dale – Truck Driver

Fluharty, Jordan – D&D

Gerds, Timothy – D&D

Graham, Lucas – Electrician

Griffin, Kerry – Truck Driver

Gunter, Gale – Truck Driver

Hamilton, Nicholas – D&D

Hardy, Richard – D&D

Harting, Bryan – D&D

Havens, Ronald – Truck Driver

Hawks, Curtis – Lube & Tireman

Horton, Larry – D&D

Howser, Martin – D&D

Huck, Marvin – Truck Driver

Hunt, Patrick – Ironworker

Iverson, Gary – Truck Driver

Jacobson, James – Truck Driver

Jerald, Monty – Crane Op

Johnson, Steven – Ironworker

Katsel, Marvin – Truck Driver

Keller, David – SOE

Kilgore III, James – SOE

Knudson, Ronald – Truck Driver

Kogan, Evan – Truck Driver

### VPP Champion continued

“It was truly an honor to receive the ‘DOE-VPP Contractors Champion Award’ at the VPP National Conference. However the real gratitude belongs to the workforce and the company’s along with the Department of Energy for their support of a program that allows everyone to do their part in creating a safer workplace,” said Don. “I feel very fortunate to be part of what I believe to be the best safety program in the nation.”

“Don’s commitment to providing a safer and stronger safety environment at WCH, and across the complex, has earned him this well deserved recognition,” said Emily Millikin, Director of ESH&Q. “He is doing a great job mentoring and encouraging all of us, both managers and workers, and applying the tenets of the Voluntary Protection Program on a daily basis.”

## Sampling Critical to Site Closeout and Closure

Jon Fancher thought the 100-F-57 waste site at F Area would take about a week to dig up and yield about 9,400 tons of contaminated soil and concrete debris. Now, five months later, Field Remediation has removed about 75,000 tons and it could be more before they’re finished. Jon is project manager for the work for Field Remediation.

They expected to find some asbestos, volatile chemicals and concrete at the site. But when they started removing the concrete, they found it was stained green – an indicator that hexavalent chromium was likely present.

Hexavalent chromium was used widely as an anti-corrosion agent in the cooling systems of the original Hanford plutonium production reactors. It is harmful to humans and fish and is easily transported in the environment. Unfortunately, numerous spills, leaks and process upsets led to significant soil contamination at most of the reactor sites.

At 100-F-57, Jon thought they were done digging a couple of times, but in-process sampling showed the soil was still contaminated. In-process sampling is conducted to help guide remediation and is a tool used to provide an analytical screening that serves as an indicator the project may be done digging. The use of in-process sampling provides a cost savings technique before spending \$15,000 on closeout verification sampling.

Verification sampling is the final step in getting Department of Energy and regulator approval that a site is remediated to meet remedial action goals and ready to be closed out, backfilled and revegetated. It is a critical part of the closure process.



*Jennifer Russell, project analytical lead for TradeWind Services, and Dave Rice, a sampler for Babcock Services, review work instructions and prepare to collect samples at F Area.*

Bump and Roll continued

Krisher, Cody – Crane Op  
 Lamm, Christopher – D&D  
 Larsen, Cheyann – Janitor  
 Leanderson, Robert – D&D  
 Lopez, Michael – D&D  
 Mace, John – Crane Op  
 Maki, Aaron – Plumber  
 Mastine, Cathalina – Insulators  
 Matosich, Brandon – D&D  
 McPhee, Scott – Truck Driver  
 McCleary, Joseph – Insulators  
 McDonald, Michael – Truck Driver  
 McFadden, Sean – Crane Op  
 Morgan, Chase – Truck Driver  
 Morris, Charles – D&D  
 Myers, Julia – D&D  
 Nelson, Christopher – D&D  
 Nelson, Darren – Truck Driver  
 Nelson, Walter – D&D  
 Olson, Barry – D&D  
 O’Neal, Sean – D&D  
 Orr, Gary – Truck Driver  
 Ostergaard, Bradley – D&D  
 Overdahl, Rebecca – D&D  
 Pickens, James – D&D  
 Pomrankey, Michael – Ironworker  
 Pruet, Jason – D&D  
 Rathje, David – Ironworker  
 Reiman, Dale – Truck Driver  
 Reitz, David – D&D  
 Roberson, Todd – D&D  
 Rucker, Tommy – Truck Driver  
 Ruggles, Matthew – SOE  
 Saenz III, Natividad – Auto Mech  
 Schilperoort, Jacob – D&D  
 Simonson, Kenneth – Truck Driver  
 Sisk, Michael – Truck Driver  
 Smith, Justin – D&D  
 Smith, Willie – D&D  
 Snyder, Craig – D&D  
 Stallcop, James – D&D  
 Stifter, Mark – Truck Driver  
 Stillings, Gerald – Crane Op  
 Swanson, Tonie – Truck Driver  
 Todd, Chad – D&D  
 Torrence Jr, David – Insulators  
 Trinidad, Tony – Truck Driver  
 Valdez III, Robert – D&D  
 Veit, Merrick – Auto Mech  
 Virgen, Dibier – D&D  
 Vooge, David – Truck Driver  
 Webley, Victor – Ironworker  
 Welch, Angela – D&D  
 Wilcox, Jeremy – D&D  
 Woolery, Peter – Truck Driver  
 Young, Bryce – Ironworker  
 Young, Randall – D&D

Sampling continued

“We collect and analyze more than 41,000 samples a year,” said Joan Kessner, the lead for lab services in Sampling & Characterization. “We provide environmental and industrial hygiene (IH) sampling, and we collected about 17,000 environmental samples last year and 24,000 IH samples.”

Some samples are analyzed at a local laboratory. The others are sent to laboratories located in Salt Lake City; Denver; Richmond, California; and Lionville, Pennsylvania. “Depending on the sample and the contaminants we’re looking for, and how badly we need the results, it can take anywhere from a half day to 45 days to get results,” Joan said.

Then, if samples come back indicating additional remediation is required, the project has to develop a new remediation plan, receive concurrence from DOE and the regulator, complete the remediation and redo the closeout sampling. The cycle can sometimes take months to complete.

“So, you can see how important it is to make sure we get sites cleaned up the first time,” said Megan Proctor, Sample Design and Cleanup Verification manager. “We’re constantly looking at process improvements that will help us do that, as well as implementing improvements that will help make the entire closeout process more efficient.”

In the meantime, Jon said the chromium at 100-F-57 appears to have migrated to a depth of at least 35 feet. That means the project has to continue digging deeper – going all the way to groundwater at 42 feet deep. Additional in-process sampling indicated the excavation needs to be expanded laterally, excavation of which is underway.

They’ll leave cleanup of the ground water to the Plateau Remediation Contractor, which has groundwater cleanup in its scope of work. Jon expects they’ll be done with excavation at 100-F-57 in November – pending confirmation of closeout verification sampling, of course.



*Washington Closure Hanford and subcontractor Ojeda Business Ventures excavate chromium-contaminated material from site 100-F-57 at F Area. The project team has excavated a plume approximately 42 feet to groundwater. The contamination is the result of leaks within the water treatment system of hexavalent chromium that was added to control corrosion in the piping for the reactor’s cooling system.*



## WCH Appreciates You

Kay Shiflet - Valuable member of the FR Project Controls team. Proactive, knowledgeable, flexible and an invaluable resource. Takes ownership of the success of the entire Field Remediation project and is quick to find improvements or fix problems.

Lloyd Foster – Excellent work as a Construction Subcontracts Engineer at 100F, who is also a Responsible Manager, Building Warden, and recently passed the STS exam.

*Left to right: Brad Smith, WCH Deputy Director, Lloyd Foster, Kay Shiflet and Rob Cantwell, WCH Field Remediation Director.*

## Chrome Treatment Creates Cost Savings

The Waste Operations team at the Environmental Restoration Disposal Facility (ERDF) has implemented a new formula for safely treating chromium-contaminated soil that will save the project an estimated \$1.2 million in treatment costs.

About 40,000 tons of chromium-contaminated soil from waste site 100-C-7 is being treated at ERDF with mixture of ferrous sulfate and Portland cement. In July, the project team began treating the waste with a formula that required 15 percent ferrous sulfate by weight.

However, the team was confident the formula was conservative and thought the amount of ferrous sulfate could be reduced. Team members conducted new bench-scale tests to prove their theory. The waste used in the new bench-scale tests was identified by the waste generator as waste from worst-case grab samples of discolored soil from the 100-C-7.

As a result of the new bench-scale tests, the formula to treat the chromium-contaminated waste was reduced from 15 percent ferrous sulfate by weight to 5 percent. Ferrous sulfate is the most expensive component of chromium treatment. A total of 12,755 tons of chromium-contaminated material had been treated before the new treatment plan was implemented September 22. The treatment plan was approved by the U.S. Department of Energy and the U.S. Environmental Protection Agency.

“On average, we’re treating about 36 containers of waste per day. At a reduction of \$1,000 per container, that results in the tremendous cost savings.”

*Jeff Armatrout,  
Director, Waste Operations*



*The ERDF team is utilizing an improved method of treating chromium-contaminated soil.*

“We’re treating the remaining two-thirds of the chromium contaminated soils with the new formula,” said Jeff Armatrout, Director for Waste Operations for Washington Closure. “On average, we’re treating about 36 containers of waste per day. At a reduction of \$1,000 per container, that results in the tremendous cost savings.”

To treat chromium-contaminated soil, ferrous sulfate is used to convert hexavalent chromium (more soluble form) to the trivalent chromium (less soluble form). Water is added to dissolve the ferrous sulfate and enhance reactivity with the chromium. Portland cement is then added to solidify the final materials.

Between 1944 and 1964, sodium dichromate was added to the cooling water systems of the plutonium production reactors to reduce pipe deterioration. The sodium dichromate entered the environment through leaks, and spills at transfer areas where loading and unloading operations took place.