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Manager,
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CH2M HILL launches actions to further protect tank-farm workers

During the past month, CH2M HILL Hanford Group, Inc. has launched a series of actions to further protect



The powered air purifying respirator protects tank-farm workers from ammonia and other chemical vapors emanating periodically from Hanford's high-level waste tanks.

workers in the tank farms from vapors. Most recently, when the question was raised regarding nitrous oxide levels in vapors, all workers entering single-shell tank farms and double-shell tank farms without active ventilation were put on supplied-air breathing equipment because there are no cartridges for the air-purifying respirators that protect against nitrous oxide. Until CH2M HILL has a chance to look at this issue fully, it wants to provide an additional measure of protection for its employees.

"We want the same thing our employees want—a safe and productive workplace. When a question is asked, we need to deliver," said Joel Eacker, vice president of Project Delivery. "In this case, we must clearly understand the source and the concentration levels of nitrous oxide and other vapors that our workers come across. This means deploying new measurement and monitoring equipment that will provide us data to resolve the questions raised concerning nitrous oxide."

CH2M HILL has convened a team of subject-matter experts and managers to focus on resolving vapor-related issues as quickly as possible. Eacker said that the team is working day and night to find long-term fixes to these problems. "We are continually searching for innovative monitoring technologies

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Pulse-Jet Mixer options reviewed for Waste Treatment Plant

Research and Technology staff on the Waste Treatment Plant Project continue to study options for using pulse-jet mixers to keep radioactive waste mixed in vessels inside the Pretreatment Facility.

Pulse-jet mixers are an integral part of the black-cell conceptual design. Black cells are sealed areas of the plant where no human will ever enter—black cells are designed to need no maintenance, no equipment replacement and no repairs. Pulse-jet mixers are air-driven pumps installed inside stainless-steel tanks that

hold radioactive waste. Because they have no moving parts, they never require maintenance or replacement.

The project's research and technology program has focused on testing and evaluating the effectiveness of pulse-jet mixers for nearly three years. Pulse-jet mixers are important for two reasons: they help ensure the quality of the glass waste form, and they prevent the buildup of flammable hydrogen gas caused by the breakdown of organic materials in the waste. The mixers agitate the radioactive waste and keep it homogenous, which is necessary to achieve the

(Continued on page 3)

Welcome to the second edition of the *River Sentinel* newsletter. In this issue, you'll read about single-shell tank retrieval and closure activities on tanks C-106 and S-112, construction progress and safety at the Waste Treatment Plant and other accomplishments that demonstrate the River Protection Project is making tangible progress toward completing tank waste cleanup at Hanford.

While we are proud of these accomplishments, we should not become complacent with our successes. You'll notice that working safely is the central theme in this edition of the Sentinel. We are developing a stronger overall work and safety culture in the tank farms and the Waste Treatment Plant—our focus is on continuous improvement on safety in the work place. The Department of Energy's oversight of contractor health and safety programs remains consistent and aggressive, and this oversight will remain vigorous as we work directly with CH2M HILL Hanford Group and Bechtel National to identify and mitigate hazards and correct deficiencies.

I would also like to thank you for your continued excellent work over the past year. Please stay focused on keeping yourselves and your co-workers safe, both on the job and at home. Remember, you are our most important asset—we can't get the job done without you. Enjoy this edition of the *Sentinel*.



Roy Schepens
April 2004



Office of River Protection

CH2M HILL actions

(Continued from page 1)

and for ways to reduce the source of vapors when possible.”

Further, engineering changes will add an amount of certainty, such as:

- Installing an active exhauster in the C tank farm and extending the AP tank farm exhauster
- Extending breather stacks on eight more single-shell tanks
- Installing remote cameras to monitor tank farm conditions
- Starting the new AN and AW tank-farm exhausters.

CH2M HILL has also decided to increase the use of personal monitors to gain additional information. This means that more workers will be wearing personal samplers to measure vapor concentrations in the breathing zones. These devices can detect nitrous oxide, ammonia and organics. More area monitors are also being added to improve the understanding of vapor concentrations.

These steps are part of an overall effort to protect the health and safety of CH2M HILL employees while continuing to make progress on cleanup at the Hanford tank farms. CH2M HILL will take other actions if necessary to protect the safety of its workers as the internal review continues. These actions will include seeking outside review of its findings. This process is expected to take several months to complete.



HAMMER instructor Stuart Hubbard demonstrates the half-face purifying respirator known as the half-mask.



Pulse-jet mixers

(Continued from page 1)

correct blend of waste fed to the melters. The agitation also gradually releases hydrogen, preventing the formation of gas pockets.

Tests have demonstrated that pulse-jet mixers work well in most applications. The pumps will be installed in 40 vessels in the Pretreatment and the Low-Activity Waste Vitrification Facilities. However, the pulse-jet mixers in five vessels in the Pretreatment Facility are requiring more testing than originally planned.

These vessels will contain waste that, when sitting still, is more like gelatin than liquid. This waste, known as a non-Newtonian fluid, must be agitated to keep it liquid. Research and Technology developed a design that would work using larger pulse-jet mixers and has also explored other technologies that could be used in addition to the pulse-jet mixers to ensure adequate waste mixing and minimize the cost and schedule impacts on the project. Two of these options are the use of multiple sparge tubes or limited use of recirculation pumps.

Sparge tubes are small pipes routed into the tanks through which air is pushed, creating bubbles in the tank. The bubbles rising through the waste cause mixing to occur. Adding sparge tubes will affect the facility in-cell piping designs, the design of the air supply systems, and the design of the vessel vent systems.

Recirculation systems use a pump to create a flow back into the tank. The flow is used to mix the material. Recirculation pumps don't affect the ventilation system design, but they do require space for the pump. It appears that spargers can successfully support

C-200 retrieval set to begin

Under plans to use a phased approach in resuming work, CH2M HILL Hanford Group will soon be retrieving waste from the C-200 tanks, a series of four 50,000-gallon tanks. A vacuum method used in the oil and gas industry to empty sludge tanks will be used at the Hanford C tank farm to retrieve an estimated total of 8,000 gallons of waste from the four tanks. The estimated time to retrieve all four tanks is one month.

The vacuum retrieval equipment was manufactured in the United Kingdom. The in-tank equipment consists of a vacuum intake at the end of an articulating mast with an 18-foot reach. The adaptations for nuclear use included equipment redundancy and hose-in-hose waste transfer lines. CH2M HILL made further modifications to the equipment, adding cameras, radiation monitors and a heating, ventilation and air-conditioning system.

During the vacuum process, the waste is retrieved from the tanks using a small amount of high-pressure water — only enough water to mobilize the sludge. The waste is transferred to a receiver vessel where it is diluted with raw water before it is entrained into the slurry pump suction and transferred to double-shell tank AN-106. This approach minimizes the addition of water to the single-shell and double-shell tank systems.

Once retrieval of the C-200 tanks is complete, the vacuum retrieval process will be used to retrieve the U-200 tanks, B-200 tanks, T-200 tanks, and T-110 and T-111.



Pulse-jet mixers are being tested by the Pacific Northwest National Laboratory using a slurry of water and glass beads, similar in density and particle size to the waste anticipated in the Waste Treatment Plant.

normal operations and the recirculation pumps may be removed in four tanks.

Research and Technology and Central Engineering are currently evaluating the final mixing design configurations in the Pretreatment and HLW facilities.

As of *River Sentinel* press time, recommendations for the final design from Research and Technology and Central Engineering were scheduled to be announced in late June.

Tank retrieval operations moving forward

When the first issue of *River Sentinel* went to press in late December, CH2M HILL Hanford Group, Inc. was very close to completing retrieval operations on tank C-106. Those operations were completed on

the last day of 2003 and CH2M HILL sent the Office of River Protection a letter informing them that the company felt as though all the requirements to close the tank had been met.

Since that time, samples and volume measurements have been taken to determine how much material is actually left in the tank. Those preliminary readings were felt to be within the guidelines required to close the tank. The final determinations are now up to the Department of Energy and the state of Washington.

Retrieval of C-106 was completed using a modified sluicing technique and some additions of oxalic acid to assist in dissolving some of the solid materials. Experience gained in these applications will be used in setting up guidelines for appropriate regulatory and technical pathways for closing the rest of Hanford's tanks.

C-106 is a 530,000-gallon tank that was built in 1943. It is more than 20 years past its expected lifespan and was once on the congressional watch list for high-heat production. That problem was solved in 1999 and the tank was removed from the list.

The second quarter of fiscal 2004 also saw a lot of activity for S-112, the second tank to be retrieved at Hanford. At *River Sentinel* press time, approximately 83 percent of the waste had been retrieved from this 758,000-gallon tank. This tank contains waste that is mostly saltcake and a water sluicing technique is being used for retrieval. Construction and testing are under way on six other tanks that are next in line for retrieval.

Cleanup plans call for the closing of up to 40 of Hanford's single-shell tanks by October 2006.



The waste retrieval system for the C-200 Series single-shell tanks includes the vessel/pump skid on the left, and the associated waste transfer line, which runs from the skid to the double-shell receiver tank AN-106.

PER, E-STARS have impact at Hanford and beyond

CH2M HILL Hanford Group's Problem Evaluation Report, or PER, system is an easy-to-use Web-based program that allows any employee to report any work-related problem. The Electronic Suspense Tracking and Routing System (E-STARS) provides a single system for managing and tracking commitments, including the actions related to a PER. Together, they have developed into the best issues-management tools in the Department of Energy complex and other government agencies.



PER and E-STARS were developed through a collaborative effort by DOE, CH2M HILL and Lockheed Martin Information Technology. CH2M HILL implemented them just over two years ago to provide cradle-to-grave handling of corrective actions. An important aspect of PER is that it is a zero-threshold system, eliminating the problem of establishing "thresholds" for reporting. Every problem requires that a manager at some level be informed of it, but deciding what to report, and to whom, used to require subjective judgments. PER ensures that any problem, however small, does not remain unreported or unresolved. And it provides the tools needed to ensure prompt reporting to the Department of Energy and its regulators.

To some, this level of reporting is a revolutionary concept. But CH2M HILL Hanford Group believes that the majority of its problems should be self-identified rather than being discovered through external assessments or event occurrences. Issues are brought to light before they become serious, so only about one half of one percent

of the 6,000 or so reports filed annually are what are termed "Significant PERs." The system also allows the company to detect trends that might indicate a more programmatic problem, and each report is viewed by a wide spectrum of people, resulting in a better quality of problem resolution. The review cycle and associated deadlines are built into the system for timely reporting and notification. Shift operations and senior managers review the PERs on a daily basis and are able to judge the pulse of their organizations accordingly.

The concept and the technology are spreading. "DOE Headquarters has implemented E-STARS for correspondence control," said Marnelle Sheriff, manager of CH2M HILL Hanford Group's Corrective Action Program. "The Pantex Plant has been modifying it to suit their business processes and implementing it over the past six months. EM-5 is looking at the PER side to possibly marry it up with E-STARS for complex-wide reporting. Los Alamos National Laboratory is impressed with

the PER system and is planning to adapt it for their own corrective action program, and there has been interest from Pacific Northwest National Laboratory as well."

DOE was recently recognized for E-STARS when it was named among the top 25 technologies in the 2004 Excellence in Government Awards program. The U.S. Air Force has invested in E-STARS to adapt it for automating its paper-based processes, and other federal agencies are using it for correspondence control, electronic forms coordination and the tracking of all types of

organizational commitments. And the software is being marketed nationally by Lockheed Martin through a DOE technology-transfer agreement.

What does this widespread interest mean for the DOE Office of River Protection and tank-farm contractor CH2M HILL? "It's a success story in the sharing of technology throughout the government," Sheriff said. "It means we're recognized as 'best in class' complex-wide. And it allows us to share the expense of upgrading the software."

"We will continue to improve the system and provide better feedback to employees, and we will continue to make it as user-friendly as we can," said Richard Higgins, director of Quality Assurance.

Continuous improvement is one of CH2M HILL's core values, and the PER system is an important tool for measuring improvement. "The PER system is here to stay," Higgins said.



FEBRUARY WAS ENGINEERS' MONTH: National Engineers Week was observed February 22-28, but River Protection Project engineers and scientists expanded the celebration with a month's worth of activities. Beginning with the left-most photo on this page; CH2M HILL's Ed Heubach and Morris Elkins (seated, center) discuss the some questions during the Department of Energy's Science Bowl with Bill Samuels from Pacific Northwest National Laboratory, while Ellen Mattlin

(Continued on page 5)

Four Pretreatment Facility vessels nearing completion

At the Waste Treatment Plant Project construction site's northern tip, subcontractor Chicago Bridge & Iron Services, Inc. workers are nearing completion of four large Pretreatment Facility stainless-steel vessels to house Hanford's tank waste before it is separated into low-activity and high-level streams for vitrification.

While the WTP Project contract schedule calls for the four vessels to be set within the Pretreatment Facility by early March 2005, CBI and Bechtel National, Inc. expect to set the structures by late summer 2004.

"We chose a special location to fabricate the vessels, away from the Pretreatment Facility, for practical purposes," said WTP Project Manager Jim Betts. "While CBI is fabricating the vessels, Pretreatment Facility craft workers can continue with the building's civil work of installing reinforcing steel and embeds, placing concrete and installing stainless-steel liner plate, which eliminates many safety, congestion and scheduling conflicts."

CBI's boilermakers have been fabricating the 375,000-gallon vessels since January 2003, and are over 85 percent complete with the structures that will receive, store and sample waste from Hanford's double-shell tanks.

"Setting the vessels will be a big milestone for the project and me personally," said CBI Superintendent Scott Christian. "Just last month



A plant wash system vessel is lowered into the Waste Treatment Plant Pretreatment Facility. This vessel is part of the system that will be used to receive, transfer and store tank waste.

I reached 35 of years service with CBI, and I'm proud it happened on a project like this."

Within each of the 267-ton structures are sets of 12 pulse-jet mixers to decrease tank waste viscosity for processing. Each set of pulse-jet mixers is made of maintenance-free, non-moving components that use an air-pulsation method to keep the waste mixed and maintain a uniform consistency. The tanks and vessels are fabricated and constructed to meet American Society of Mechanical Engineers Section VIII standards.

The vessel shells, heads, bottoms and pulse-jet mixers were prefabricated in CBI's Provo, Utah, shop and shipped to the WTP construction site. Once the components arrived at the construction site, CBI's more than 50 skilled, union-based boilermakers assembled and hand-welded them into place. CBI's team has safely worked more than 163,000 hours without an OSHA recordable injury while keeping high quality and productivity standards.

"The relationship between the craft workforce

and our construction team is resulting in an excellent job with the vessels," said CBI Assistant Project Manager Dave Lacey. "We have adopted several of the WTP Project's philosophies of Zero Accidents and Errors into our already successful safety and quality programs."

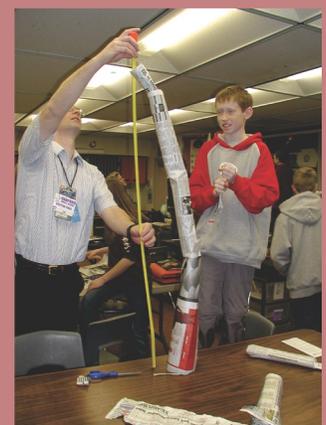
The length of each of the vessel's welds totals over 14.5 miles. All welds are inspected using radiography, an X-ray photography process used to inspect vessel welds needed to meet stringent nuclear-quality assurance standards. Welding radiography for the tanks is almost 98 percent complete, with most inspections resulting in a nearly perfect rating. Ultrasonic testing is also used. Hydro-testing the vessels is the next step before the structures are safely set into the Pretreatment Facility. Hydro-testing involves filling the tanks with water to test structural integrity.

"CBI has been a great asset to our construction team," said BNI Subcontract Coordinator Bill Turnbow. "They are truly experts in their field when it comes to constructing tanks and vessels."



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of DOE keeps the score for the round; students at Kennewick's Park Middle School work with Bechtel Engineer Gilber Chan on a demonstration; to the right, Dave Bragg demonstrates robots and Geiger counters for visitors to the CH2M HILL Engineering display at the Columbia Center Mall in Kennewick; and Jim Field of CH2M HILL measures the height of a newspaper skyscraper built without tape or staples by a Hanford Middle School student.



Why is it so windy here?



Wind at the Hanford Site—it's eye-tearing, allergy-raising, work-stopping.

But according to Dana Hoytink, project manager, Meteorological and Climatological Services at Pacific Northwest National Laboratory, "The wind at the Hanford Site is not unusually prevalent or strong. As in any other location on earth, wind is a function of many factors unique to a particular area."

Some of the major influences on the winds we experience are the jet streams, the strong currents of air that are produced by the pressure gradients between the poles and the equator and strengthened by temperature differences across frontal boundaries. Jet streams are strongest at altitudes of 35,000 feet with lower speeds below and above. When the jet-stream-wind speeds are strong, and the jet stream is located over this region, the speed of surface winds tends to be higher.

Another factor for winds in the Mid-Columbia area from late spring through early fall is the difference in the temperature between the air over the Cascade Mountains and the air over the Mid-Columbia region. The greater the temperature difference, the stronger the winds.

Winds over the Hanford Site are predominantly

from the northwest or the southwest. The strongest winds over the Hanford Site have topped 80 miles per hour. The wind-measuring instruments atop Rattlesnake Mountain broke just after registering wind at 150 miles per hour.

And what about that dust? That airborne real estate is a function of our geologic history and agricultural practices. Ten thousand years ago, at the time of the last Ice Age floods in eastern Washington, the water drained away and left a lake bed of sand and silt. Since then, winds sculpted the sand dunes we see today. Plants stabilize the dunes, but agriculture in the region and fires, such as the Command 24 Wildland Fire in summer of 2000, disrupt or remove the vegetation that stabilizes the sand dunes and fine soils.

Blowing dust and strong winds have characterized the area since people have established homes and worked here. During the massive construction efforts for the Manhattan Project during World War II, "termination winds" often sent workers housed in temporary tent shelter to quit, collect their last paycheck and leave the area.

Now the strong winds that funnel between Rattlesnake Mountain and the Yakima Ridge often sandblast the workers and facilities of the 200 Area. In an effort to encourage vegetative growth, a windbreak of trees has been planted in the 200 West Area to slow the wind down, with the hope that over time, plants will once again establish themselves on the dunes.

In the meantime, when high wind warnings are posted during work days at Hanford, follow the recommendations of your safety organizations, which may include wearing safety glasses and securing the outside work site equipment and materials.

WTP site free of radioactivity

The U.S. Department of Energy declared the Waste Treatment Plant Project construction site free of radiological contamination before awarding Bechtel National, Inc. the prime contract in December 2000 to design, procure and construct Hanford's vitrification plant.

Although the Waste Treatment Plant will not receive radiological and chemically contaminated tank waste for vitrification until 2011, there are nearby Hanford tank-farm facilities, remediation areas along with soil and groundwater areas where cleanup and maintenance activities continue.

The WTP Project has a Zero Accidents and Errors philosophy that maintains that all injuries and incidents are preventable through careful planning, communication and input from all employees. That's why teams of employees implemented safeguards, emergency planning and surveying technology to protect workers' health and well-being before construction activities began in October 2001.

The WTP Project has continued construction site radiological, chemical and air quality surveying activities to ensure worker safety. While workers at some Hanford tank farms have experienced vapors from underground radioactive storage tanks, tank-farm vapors are not a problem at the WTP construction site. The WTP Project Safety Assurance department has chemical vapor and gas-monitoring equipment to monitor site-generated vapors and gases, such as exhaust fuel vapors, paints and solvents. Fixed oxygen monitors are also used in enclosed places.

Hanford Advisory Board

*Celebrates
ten years
of commitment
to Hanford
cleanup*

This year the Hanford Advisory Board celebrates 10 years of commitment to support the Tri-Party Agreement and provide the Tri-Party agencies consensus advice on Hanford cleanup.

Ten years ago, identifying the organizations to be represented on the HAB, developing a charter and coming to consensus on anything seemed quite impossible. After a somewhat tumultuous first year, Marilyn Reeves was selected as the chairwoman, providing the stability and leadership strength the HAB needed to find the path forward.

The HAB has evolved significantly over the years while providing the U.S. Department of Energy and its regulators, the Washington State Department of Ecology and the U.S. Environmental Protection Agency, with formal advice and informal counsel on policy issues relating to the cleanup at Hanford. Although the interests represented by seats on the HAB are polar opposites on some issues, the HAB has been able to put partisanship aside in the spirit of the TPA to become effective in influencing many cleanup decisions.

The Board comprises representatives of local and regional government, Native American tribes, business interests, workers, the state of Oregon, environmental organizations, agencies, public interest groups and the public-at-large. Todd Martin, representing Citizens for a Clean Eastern Washington, is chairman of the HAB. Ken Bracken, representing Benton County, and Shelley Cimon, representing the public-at-large, are the vice chairmen of the Board.

Future HAB meetings will be held in the Tri-Cities on June 3 and 4; in Seattle, Wash., on Sept. 2 and 3; and in Portland, Ore. on Nov. 4 and 5.

Teamwork places Project W-314 in the 'black' and ahead of schedule

How did CH2M HILL Hanford Group, Inc. get Project W-314, Tank Farms Restoration and Safe Operations, from \$11 million over budget in May 2002 to \$1 million under budget at the end of December 2003 and advance project completion by as much as six months? The answer is teamwork, and the accomplishment is worth noting.

Begun in 1997, the Tank Farms Restoration and Safe Operations is a \$285 million project that provides infrastructure to support waste transfer from the double-shell tank farms to the Waste Treatment Plant and supports improvements to bring tank-farm facilities into compliance with environmental regulations. CH2M HILL came to the Hanford Site in 2000 and took on Project W-314. The Waste Treatment Plant, now under construction, is due to begin vitrifying tank waste under full operation in 2011.

The planned end date of Project W-314 is June 30, 2005, and project completion supports fulfillment of a major milestone of the Tri-Party Agreement. At this time, CH2M HILL expects to complete the project early, in the January to March 2005 timeframe.

"From senior management, engineering and construction, to procurement, work planning and scheduling, our employees worked together to modernize management techniques and implement a willingness to change for the better," said Ed Aromi, president and general manager of CH2M HILL Hanford Group. "Working closely with our client, DOE's Office

of River Protection, and our subcontractors, we have turned Project W-314 around, and have been accomplishing work safely and under budget every month since May 2002."

Improvements in the conduct of work on Project W-314 have led CH2M HILL to reduce the cost of the project from \$285 million to \$240 million and to predict the completion of work will be three to six months early. As of Dec. 31, 2003, CH2M HILL completed about 90 percent, or \$215 million of the work.

Project director Ken Jordan cited the following actions that contributed to the turnaround:

- Improved use of competitive bidding and subcontractor performance incentives
- Improved project control performance
- Establishment of a construction management organization that facilitated the prompt resolution of problems in the field and proactive planning for design and construction work
- Significantly improved communications among client, CH2M HILL and subcontractors.

"The encouragement and advice we received from CH2M HILL and Office of River Protection senior management helped us turn the corner," said Jordan.

Joel Eacker, vice president of Project Delivery, credits the team's hard work. "They identified the challenges that were leading to inefficiencies in the field and found solutions to those issues. The team's performance is impressive and their safety record is solid."

Flexible workforce safely accomplishes analytical lab upgrade

Getting Project W-314 back on schedule and under budget was a major accomplishment for CH2M HILL Hanford Group, Inc. One milestone that the project recently met on time involved an upgrade to the mixed-waste tank system at the 222-S Laboratory, the analytical services laboratory for the Hanford Site. The job had to be completed without disrupting the analytical work at the lab or compromising safety.

It took teamwork to pull off this feat. All the samples that come into the lab go through hot cells with drains to the tank system where the upgrade work was to be done, and the sink where liquid waste is discharged to the system was affected as well. Operations personnel, radiological control staff members, Project W-314 subcontractors and the analytical production staff had to understand each other's needs and work together.

Through meetings, discussions and lots of rearranging of schedules, the job was completed with no adverse impacts on the lab's mission, and no safety problems. The Analytical Technical Services radiological control staff supported both the lab's requirements and the work of the Project W-314 crew. Radiological control technicians worked overtime supporting the Project W-314, sanitary water line replacement, tank waste analysis and off-unit waste receipts. Waste activities were moved to swing shift. The analytical production personnel arranged their schedules to fit the availability of the radiological control technicians while still making progress on vitally important sample analysis.

"The workforce remained flexible — switching shifts, and working weekends and holidays when required by the project staff," said Barbara Hill, deputy director of Analytical Technical Services. Flexibility and a little creative scheduling, Hill said, resulted in both the analytical staff and Project W-314 personnel completing their projects on time.



Bill Baden, left, and Gary Cooper work on the W-314 Project upgrade of the 222-S Laboratory's mixed-waste system, an area shown in the inset photo.

WTP engineer returns from Iraq



Waste Treatment Plant Project mechanical systems engineer Mike Pratt received a bronze star during his nine months of active duty in Iraq.

Mike Pratt is back at his job as an engineer in Mechanical Systems after a 14-month hiatus. He spent that time at his other job: a Sergeant 1st Class in the Utah National Guard. Nine months of his active duty was on the ground in Iraq.

"My job was to lead a small team that tracked down terrorists and Saddam loyalists and uncovered their weapons caches," Pratt said. "Basically, we got some of the bad guys off the streets."

According to the U.S. Army, Pratt and his team did a little more than that. He was awarded the Bronze Star medal for "outstanding job performance" during his tour of duty in Iraq.

While Pratt was gone from his regular job on the Waste Treatment Plant Project, he wasn't forgotten. As a reservist called to active duty, Bechtel continued to provide health insurance coverage for his family.

"Continuing my Bechtel health insurance coverage throughout my deployment gave me security and peace of mind while I was at war. I was able to concentrate on performing my mission without worrying about the welfare of my wife and three children."

Pratt also continued to draw a paycheck that covered the difference between his military pay and his regular Bechtel salary while he was deployed.

"Because Bechtel continued to pay me a salary, I was able to provide the essentials, not only for my family, but for the three-man team assigned to me in Iraq," he said. "National Guard units are not as well equipped as the regular Army. With my Bechtel paycheck, I was able to buy the equipment my team needed to be successful."

Pratt ordered supplies and equipment off the Internet—hand-held radios, global positioning systems, satellite receivers and other essential items. This equipment was, according to Pratt, a "force multiplier." It was critical to the team's success.

"When I was recommended for the Bronze Star, I was told my work saved the lives of American soldiers," said Pratt. "Bechtel deserves a great deal of the credit."

"It was the emotional support of patriots and friends at home and on the WTP Project, along with the continued health-care coverage and salary assistance provided by Bechtel, that made my experience in Iraq and Kuwait a positive one for me and my family."

Illustrator helps distribute food to low-income families

On Saturday mornings, while many of us are still sleeping, John Lawson and members of his family join a number of volunteers to gather and distribute food to residents of low-income housing in Kennewick, Pasco and Richland, Wash.

It all started when a neighbor of the Lawson family requested help to distribute food on a Saturday when she had to be out of town. "We filled in for her on that day. That was two years ago, and we have been delivering the food almost weekly since then," said Lawson, senior scientific illustrator at CH2M HILL Hanford Group.

A loosely knit and diverse group of volunteers from the Loaves and Fishes Ministries of the Calvary Church, other churches and area food banks begin their Saturdays at 6:30 a.m. picking up wholesome food that is near or at its shelf-life date from grocery stores or gleaned from farmers' fields and bringing it to the Calvary Church warehouse in Richland. There food is sorted and the deliveries are staged.

Some volunteers have only a few apartment residents that they bring food to; others like Lawson stop off at low-cost housing apartment complexes in Kennewick to distribute food from the back of pickup trucks. The Lawson family usually finishes its distribution around noon. On any one Saturday, 600 families will receive bread and baked goods, produce, frozen foods and dairy products through this program.

At the apartment complexes he visits, Lawson makes sure that some of the handicapped or elderly people who cannot leave their apartments get food. He said, "It is a way to check in on people and get to know them. For some folks, it is the only social contact they have. Why wouldn't you want to help? It's easy, fun and rewarding."

In an effort to garner support for the program, Lawson prepared an informational video on the food distribution. In it, Lawson cites statistics from the U.S. Census Department indicating

that nearly 13,000 people live in poverty in Benton County and more than 3,600 of that number are children under the age of 18 years. Many of these people must make the choice of using their limited resources to pay for housing or food. To the detriment of the children's health, the choice is often *not* to pay for food.

Lawson acknowledges that some people who receive the food may be taking advantage of the goodwill of donors and volunteers, but he notes that many more people, especially children, are caught in a cycle of poverty and unfortunate circumstance. He believes that the food he distributes might just make the difference in helping them break out of that cycle.

"Being part of this effort is a way of taking care of people in our community," he said. "I'm trying to teach my children that it is everyone's responsibility to give back to his or her community, and to take care of one another."



Lawson's son Lane helps distribute the food to those in need at locations around the Tri-Cities area.

The *River Sentinel* is published quarterly for all employees of the Office of River Protection and its contractors.

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