

REACH

A publication of the U.S. Department of Energy for all Hanford Site employees



Groundwater/vadose zone science and technology program earns positive marks

Edye Jenkins, BHI

Hanford's groundwater/vadose zone science and technology program has earned positive marks after an 18-month review by the National Research Council, a part of the National Academy of Sciences. "This is the most positive NRC report about Hanford that I have seen," said Chris Whipple, NRC committee chairman.

The science and technology program, more commonly called the S&T program, is part of the Groundwater/Vadose Zone Integration Project managed by Bechtel Hanford for the U.S. Department of Energy. The Pacific Northwest National Laboratory is a partner with BHI and has the lead on the S&T program.

The goal of the S&T program is to provide new knowledge, data and tools for the cleanup and stewardship mission at Hanford. The program also seeks to improve the scientific basis for decisions on protecting the Columbia River and its ecological systems while preparing Hanford for the future.

The review was commissioned by DOE and conducted by the NRC's Committee on Environmental Restoration Science and Technology. The report notes that "...the work to be carried out under the S&T program appears on the surface to be technically meritorious and is likely, in at least some cases, to make important contributions to enhancing scientific knowledge."

"This report acknowledges the outstanding effort put forth by the entire Integration Project team," said John Morse of the DOE Richland Operations Office Groundwater/Vadose Zone Integration Project. "The roadmap continues to serve as the foundation of the Integration Project's S&T activities and has been used as the template for other sites and the national program. The success was a result of the cumulative efforts of all involved and, in particular, Dr. Michael Graham of BHI and Mark Freshley, Dr. John Zachara and Dr. Terri Stewart of PNNL," said Morse.

Good roadmap

"I think one of the main messages from this report is that the science and technology program is critical to cleanup," said Kevin Crowley, NAS study director. "The other main message is that the Integration Project is off to a good start with this program."

Crowley also noted that the report suggests some improvements. "The S&T program needs to be tied more explicitly to cleanup decisions that have to be made and it needs to improve the documentation and peer review of S&T projects," he said.

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Groundwater/vadose zone science and technology program earns positive marks

In the report, the NRC committee notes that the S&T program has made positive strides in its work to address areas where research is needed. "The knowledge and technology needed to address the most difficult problems at the site do not yet exist, and advances will not be possible without continuing investments in S&T," the committee stated.

The 14-member panel suggests that the Integration Project's System Assessment Capability may be a useful tool to help set priorities. The System Assessment Capability is a suite of computer models and analytical methods that will provide information about the site-wide impacts of contaminants from past Hanford operations in current waste storage locations.

The report praises the Integration Project for its overall management of the program. "The committee also finds that, given the technical and organizational complexity of the task, the Integration Project has made a good start in creating an S&T roadmap, defining and initiating an S&T program, and fulfilling the promise of its mission."

Useful elsewhere

The NRC committee judged that many of the results of S&T work at Hanford potentially will be useful to other DOE sites and, in general, to any other contaminated sites in arid regions. The members found that the involvement of experts from national laboratories and other DOE sites in the Integration Project's planning made an important contribution to the S&T program.

The report also provides recommendations to improve the S&T program. "The committee's suggestions primarily focused on the need to strengthen our methods for prioritizing and documenting the efforts of the S&T program," said Michael Graham, Integration Project manager. "The panel also recommends several areas that are not within the scope of the S&T program but should be made a high priority. These primarily deal with the development of new technologies and methods for characterizing and cleaning up contaminants."

Mark Freshley of PNNL, who manages the S&T program, said the team is reviewing the committee's recommendations to identify the best way of implementing them. "We will implement many of the technical and management suggestions in it," he said. "We also will use the committee's comments as we update our planning document, called the Science and Technology Roadmap."

DOE established the Integration Project in 1997 as its centerpiece for near- and long-term water resources protection in the Hanford Site's cleanup mission. The project's purpose is to inform and influence cleanup decisions by assessing the risks and effects of the Hanford Site's activities on the many users of the Columbia River.

The report will be available in September on the Internet at www.nap.edu. ♦



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Groundwater/vadose zone science and technology program earns positive marks, cont.

Renowned experts make up NRC committee

The National Research Council Committee on Environmental Remediation Science and Technology brought together 14 experts from government, private industry and academia who worked for 18 months to review Hanford's science and technology program. The NRC is part of the National Academy of Sciences.

Committee members include Kevin D. Crowley, National Academy of Sciences, study director; Chris G. Whipple, ENVIRON International Corporation, committee chairman; D. Wayne Berman, Aeolus Inc.; Sue B. Clark, Washington State University; John C. Fountain, State University of New York; Lynn W. Gelhar, Massachusetts Institute of Technology; Lisa C. Green, Lucent Technologies; Robert O. Hall, University of Wyoming; Edwin E. Herricks, University of Illinois; Bruce D. Honeyman, Colorado School of Mines; Salomon Levy, Levy and Associates; James K. Mitchell, Virginia Polytechnic Institute and State University (retired); Leon T. Silver, California Institute of Technology (retired); Leslie Smith, University of British Columbia; and David A. Stonestrom, U.S. Geological Survey. ♦

S&T roadmap aids cleanup

The first Hanford site-wide science and technology "roadmap" is linking cleanup needs with science and technology projects.

"The roadmap describes the objectives, scope and outcome of Hanford science and technology activities related to the Integration Project and provides the basis for detailed work plans for science and technology activities," said Mark Freshley of Pacific Northwest National Laboratory.

Freshley manages the science and technology program, which is part of DOE-RL's Groundwater Vadose Zone Integration Project managed by Bechtel Hanford.

The roadmap was developed through a series of meetings that included representatives of DOE's national laboratories, site remediation contractors, regulators, tribal nations and local stakeholders. The first version of the roadmap was issued in June 1999.

The Science and Technology Roadmap is available on the Internet at www.bhi-erc/projects/vadose/sandt.htm. ♦

Picture Pages



HIGH-LEVEL VISIT: Roy Gephart of Pacific Northwest National Laboratory shares the view of the Hanford Site from Gable Mountain with Jessie Roberson, the new Department of Energy assistant secretary for Environmental Management. Roberson participated in meetings and tours for two days last week on her first visit to the Hanford Site since being named “cleanup czar” by Energy Secretary Spencer Abraham. In her position, Roberson is responsible for much of the cleanup work at Hanford, including waste operations, research-and-development programs and environmental restoration. Roberson has been a member of the Defense Nuclear Facilities Safety Board and was the manager of DOE’s Rocky Flats Field Office in Colorado from 1996 to 1999.

IF THE BOOT FITS: Hanford firefighters (from left) Tom Perkins, Kelvin Schuman and Dennis Williams kick off the Hanford Fire Department’s Fill the Boot campaign to collect donations for the Muscular Dystrophy Association Labor Day Telethon hosted annually by comedian Jerry Lewis. Firefighters will be collecting for “Jerry’s kids” at barricades and security gates on Thursday, Aug. 23.



Innovation, cooperation key factors in WESF upgrades

Connie Eckard, FH

The finishing touches are being made on a significant electrical safety upgrade project at the Waste Encapsulation and Storage Facility in the 200 East Area. The upgrades are correcting some long-standing deficiencies that contributed to an electrical arc flash that burned an electrician and resulted in a lost-time injury.

WESF was built in 1974 to encapsulate and store cesium and strontium in deep water-filled pools. As long ago as 1990, some major deficiencies were identified with the facility's electrical system. Recommendations were made to correct the deficiencies, but there were more deficiencies and problems than there were dollars in the budget for corrections.

"We were only able to nibble away at the corrections, a little bit each year," said Dewey Robbins of Fluor Hanford and the Waste Management Project, who was coordinator of the upgrade project.

During fiscal year 2000, Waste Management Project personnel worked closely with Bill Ruhlman, the Department of Energy Richland Operations Office facility representative for WESF, and Sen Moy, the DOE-RL WESF program manager, to make senior management aware of the funding importance of the upgrades.

Moy included the safety factor when he made a pitch for funding to his manager. George Sanders agreed, and brought the issue to the attention of DOE-RL senior management. "It was a funding issue," said Moy, "and George made a push to get the resources from RL people like Sandy Johnson, Rich Holten, Mat Irwin, Beth Bilson, Paul Kruger and Keith Klein.

"Senior management recognized the issue and went to bat for funding the upgrades," said Moy, acknowledging the team that successfully got the job done. DOE found \$700,000 to fund the necessary upgrades, and in July 2000, money was assigned to the project.

Assessing needs

Detailed planning went on for six months as WESF personnel determined that five specific electrical upgrades were needed at the facility. Finding the additional electricians who were needed to do the work proved to be another challenge.

"There were reels of wire to be installed, and we figured we would need eight or nine electricians for the job," said Robbins. "We had three electricians, so we borrowed some, brought in a temporary and decided we had to get the job done with them. They quickly came together as a team, and as they came up to speed they worked faster and their efficiency improved."

The project has been under budget and has had an excellent safety record. In the hundreds of hours worked so far, not even a single first-aid case has been reported.



Melissa Herron (left), Pete Pena and Bill Greger of Fluor Hanford attach a wire basket to a cable bundle as they prepare for a wire pull during electrical upgrades at the Waste Encapsulation and Storage Facility. Greger and Pena are electricians with the Waste Management Project, while Herron is with the Nuclear Material Stabilization Project.

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Innovation, cooperation key factors in WESF upgrades, cont.

“We’re proud of the way the electricians have ‘dug in’ to complete the projects,” said Robbins. “The electricians were well organized, the work was well planned, the configuration work was done quicker than expected and the conduits were cleaner than we anticipated.”

The biggest part of the upgrades was pulling electrical cables from substations outside into the facility’s motor control centers. The second biggest part was adding ground fault interrupters that fit on the breakers to sense small amounts of electricity loss. The interrupters actually trip the breakers to keep a ground fault from growing bigger or causing a short circuit to develop.



A temporary power cable was installed this spring for the distribution of electricity during feeder pulls at WESF.

Productive team

Ruhlman was impressed with the way the non-WESF electricians were totally integrated into the working team. “This extremely tedious work was done safely and professionally,” he said. “There was coordination to assure that electrical interruptions had minimal impacts on operations. And there were innovations to increase productivity and safety.

“Mike Storm of Fluor Hanford deserves a lot of credit for the overall success of the project,” Ruhlman said. “In addition to providing top-notch engineering expertise, his day-to-day involvement with the electricians embodied the spirit of ISMS and was vital to completing the work safely, on schedule and within budget.”

Refurbishing the electrical breakers, the fifth and final upgrade, is still under way. Eleven breakers are being sent back to the vendor, where the breakers are refurbished and tested before they are returned to be put back in service. The magnitude of this upgrade is more easily understood when it is realized that each breaker measures 18 inches by 18 inches by 18 inches and weighs 300 pounds. Handling the breaker is somewhat like grappling with a small safe.



Melissa Herron of Fluor Hanford terminates temporary electrical power to the temporary power panel at the Waste Encapsulation and Storage Facility in the 200 East Area.

“Each of the breakers is at least 25 years old,” Robbins explained. “We are taking them out one at a time and sending them to the vendor for refurbishing, which costs approximately \$1,500 apiece. We essentially get a new breaker that’s been tested back from the vendor. A brand new breaker costs around \$25,000.”

The breaker work is on schedule to be completed by the end of the fiscal year. ♦

DOE-RL pleased with Employee Concerns audit of Fluor Hanford

It had been at least five years since the Department of Energy Richland Operations Office had assessed Employee Concerns programs on the Hanford Site.

In July, an audit was performed of the Fluor Hanford program. The audit included reviews of administrative requirements and proactive measures to improve efficiencies. The audit also included workforce interviews of a random sampling of 164 employees who were each asked five questions about the program.

“We did a high-level review to see if people were familiar and comfortable with the program,” said Julie Goeckner, program manager in the Office of Special Concerns of the Department of Energy Richland Operations Office. “We talked to about 4 percent of the Fluor Hanford workforce, and we were pleased with the results.

“Anytime 92 percent of the respondents say they would use your program if they had a concern, that’s excellent. It’s encouraging that 87 percent also said they would take issues to the Fluor Hanford program first, rather than going directly to the RL program,” Goeckner said.

The Employee Concerns Program encourages resolving work-related issues at the lowest organizational level. Although this is not required, Goeckner points out that first-line supervisors are almost always the best at handling concerns in their work groups.

Seventy-six percent of the questioned Fluor Hanford people said that they had had training about using the Employee Concerns Program. There is an Employee Concerns segment in the annual Hanford General Employee Training and the segment is regularly modified to keep the segment consistent with the program.

Goeckner was really pleased that 86 percent of the Fluor Hanford people surveyed said that the Employee Concerns Program is effective. “That means people have had some kind of positive experience and that they haven’t had to escalate their concern to a higher level,” she said. There were, however, 2 percent of those surveyed who thought the program was ineffective or mediocre.

Eighty-five percent of those surveyed said they believed that Fluor management supported the Employee Concerns Program, although another 6 percent were divided over the commitment of upper or lower management ranks.

“The responses in the survey will provide benchmarks for measuring future progress of our program,” said Donna Martinez, manager of the Fluor Hanford Employee Concerns Program.

The ultimate goal of an Employee Concerns program will be reached when people are comfortable raising concerns and talk openly about concerns without fear of reprisal. Concerns are increasing, which, believe it or not, is a positive sign, according to Martinez. Individuals in the Fluor Project Hanford team are coming forward and anonymous concerns are decreasing.

Martinez also said that more emphasis is being placed on group facilitation and individual mediation, both of which help foster increased trust and confidence between managers and employees.

Up-to-date details concerning the Employee Concerns Program for employees of the Fluor Project Hanford team can be found at http://www.rl.gov/hr/empcon/ecp_home.htm. ♦

Compliance officers steer through environmental thicket

Bryan Kidder, FH

The protection of people and the environment is at the heart of Hanford cleanup. To remain focused on that mission, facilities and services within the Fluor Hanford team have environmental compliance officers to guide their actions within the conditions of very complex environmental regulations.

To learn more about the role of the environmental compliance officer, or ECO, I spoke with Brett Barnes of T Plant in the Fluor Hanford Waste Management Project. Brett started at Hanford in 1989 and was one of the first in the old Environmental Services organization with a degree in environmental science.

As ECO at T Plant, Barnes reports to Bob Barmettlor, T Plant facility manager. "Our facility is preparing to accept K Basins sludge while moving forward with other work," said Barmettlor. "While protecting our environment is the duty of all of us, I need an ECO to focus T Plant personnel on compliance issues so we stay on course."



Laura Johnson and Brett Barnes review the contents of a drum containing bulbs for recycling. As environmental compliance officer, Barnes is involved with the site-generated waste at T Plant. Johnson is a nuclear chemical operator at the plant.

Keeping us legal

Barnes said he makes sure the facility's permit conditions, regulations and other requirements are met by weaving them into procedures. "I follow up on this by observing activities to see that they are being properly implemented. I also interface with the regulatory agencies during inspections and audits."

These visits give the regulators an opportunity to evaluate how facilities at T Plant comply with permits and regulations. The rules spelled out in the Clean Air and Clean Water acts as well as the Resource Conservation and Recovery Act provide the backbone of environmental protection in the United States.

Because of Barnes' knowledge of T Plant permit conditions and regulations, he gives technical advice to maintenance, radcon, engineering and other organizations through administrative controls or position papers.

When something unusual comes up at the facility, ECO Barnes is one of the first to be called. "In the operation of a 60-year-old plant, you encounter unexpected challenges," Barnes said. "We recognize that possibility, so when things happen, we devise environmentally compliant pathways to move forward."

Regulatory tangle

A good example of this is the preparation of T Plant for the storage of K Basins sludge. The sludge has been designated as a remote-handled transuranic waste that must also comply with the Toxic Substances Control Act. This is because the waste contains small levels of polychlorinated biphenyls, or PCBs.

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Compliance officers steer through environmental thicket, cont.

The storage of K Basin sludge in accordance with the Toxic Substances Control Act requires adequate floor, roof, walls and containment capability for two times the internal volume of the largest PCB container, or 25 percent of the total volume, whichever is greater. These requirements were passed on to designers through input from the facility ECO.

Selected 221-T Canyon process cells will be retrofitted to become compliant for the storage of K Basins sludge in accordance with these requirements. This effort involved discussions with regulatory agencies, members of the Sludge Handling System Project team, T Plant personnel and designers.

Juggling priorities

Barnes said it's a challenge to put enough time into the work, given the many different things going on simultaneously. Even with that, compliance remains the top priority.

When he needs help, Barnes and the other ECOs call on the Environment and Regulation Group within Fluor Hanford. This organization takes the lead in permit writing and the deeper regulatory issues that affect the entire site. Barnes also seeks the help of Larry Kamburg of Fluor Hanford when it comes to issues involving chemical management and radioactive and toxic air emissions.

Permit conditions at T Plant go beyond the materials in the canyon or storage tanks. Barnes' role as ECO also involves him in the proper packaging, treatment and storage of wastes generated during normal operations or from various other projects. Every battery and bulb must be properly labeled and containerized for eventual shipment to the 400 Area Recycling Center.

The job of environmental compliance officer at T Plant involves day-to-day responsibility for compliance activities. When the unusual situation arises and protection of workers or the environment is in question, the ECO is an excellent source of direction.

T Plant facility manager Barmettlor relies heavily on his ECO. "Brett is our library when it comes to staying in compliance," Barmettlor said. "The rules are far too complex and ever-changing to understand without the help of our facility environmental compliance officer." ♦

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SNF Project saves with condition-based maintenance

Michele Gerber, FH

As the result of a joint innovation between Fluor Hanford and the Pacific Northwest National Laboratory, the Fluor Hanford Spent Nuclear Fuel Project expects to save \$1 million in maintenance costs over the remaining five-year life of the project.

The new approach, called condition-based maintenance, was customized and applied this year by a team of PNNL researchers who specialize in Decisions Support for Operations and Maintenance, or DSOM, and the SNF Engineering group. DSOM staff members have developed methods to optimize operations and maintenance for industries throughout the United States.

The SNF maintenance program was optimized by employing a risk-based approach to balance the costs of maintenance with the risk of component failure. An evaluation of risks looked at regulatory drivers, mission criticality, secondary hazards, personnel safety issues, operational impacts and other parameters.

PNNL staff members worked with the SNF Engineering group to evaluate 1,535 regular preventive maintenance tasks in the SNF Project, covering more than 5,000 equipment components. They built a matrix of equipment needs, costs and risks. They determined that 22 percent of the regular preventive maintenance tasks could be performed less frequently or eliminated with no adverse impacts to project safety or schedule.

Over 65 percent of the preventive maintenance schedules were unchanged — mostly those involving safety-class equipment, or equipment for which maintenance and inspection regimes are called out in safety analysis documents. Additionally, some equipment was identified that did not have a preventive maintenance schedule, but would benefit from creating one.

“With support from PNNL, we were able to find ways to save costs and thus use funds to accomplish other tasks to help move irradiated fuel away from the Columbia River,” said Don Engelman of the SNF Engineering group. “By utilizing DSOM staff, we in the SNF Project were able to access talented, nearby resources to the benefit of the whole Hanford Site. Our next step will be to look for follow-on savings from a more comprehensive application of the condition-based maintenance program.”

Terry Walton, Technology Management director for FH, said the right-sizing of maintenance tasks was “a great example of teaming efforts between PNNL and FH.”

Last year, FH and PNNL formalized a business partnership in which PNNL performs technology management functions for FH. “This agreement is an on-site bridge,” said Walton. “Technology management here at Hanford involves a lot more than just creating new widgets. It leverages PNNL’s scientific and technical expertise to directly aid FH cleanup projects.” The program is also assisting the SNF Project with fuel reactivity studies, safety analysis work and sludge investigations. ♦



Fluor Hanford Nuclear chemical operators Robert Crow, left, and Raul Ramirez test new process equipment to speed production in K West Basin. The new equipment has been operating since Aug.1.

ALARA success achieved at WRAP

Charlie Taylor, FH

A major ALARA (As Low As Reasonably Achievable) success has been documented at the Waste Receiving and Processing facility with the graduated reduction of radiological controls and procedures required in processing drums of transuranic, or TRU, waste.

A team of WRAP employees in management, operations, radiological control and engineering developed new methods that save time and decrease the burden of wearing personal protective equipment.



TRU waste at WRAP

Transuranic waste consists of ordinary-looking trash contaminated with radioactive material containing radionuclides with an atomic number greater than that of uranium. Since 1970, suspect TRU and mixed-TRU waste containers have been separated from other waste and stored above ground or buried in shallow trenches to be retrieved at a later date.

WRAP went operational in 1999 as the major unit working toward removal of TRU waste from Hanford. Transuranic waste is usually received from the Central Waste Complex and undergoes a stringent certification process that includes radioassay and other analysis.

TRU waste drums that do not meet the acceptance criteria for final disposal require repackaging. If a TRU drum requires repackaging, this operation is completed in the TRU glovebox enclosures located in the process area of WRAP.

The contents are removed, the noncompliant condition is corrected and the material is repackaged in a "one-trip drum," so named because it is not designed for reuse. Only drums that meet the certification standards are shipped to the Waste Isolation Pilot Plant outside Carlsbad, N.M., for disposal.

In the older process, as the one-trip drums were readied for exit from the glovebox, respiratory protection was required for the entire room known as the process area. The drums were disconnected from the glovebox and the drum and exit port seal areas were decontaminated. This was labor-intensive, and the use of respiratory protection made it physically taxing.

Early in the operation of the gloveboxes, a ventilation collar was fabricated and attached to the box at the drum exit ports to reduce the potential for airborne releases. Surveys, monitoring and sample analysis took enough time that the removal of two drums was a full-day evolution.

Last December, a team made up of bargaining-unit and exempt representatives of operations, radiological control, engineering and maintenance finalized a process that, when implemented in four phases, would result in fewer controls and a more efficient process.

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ALARA success achieved at WRAP, cont.

Phase one was to continue to perform the exits as before, but with the use of an improved ventilation collar that featured better coverage and a higher flow rate than the previous fixture.

Additional radiation protection information was gathered with the use of breathing zone air samplers and modified contamination surveys. Also, the radiological controls continued to include respirators for all employees in the process-area room.

The effectiveness of the new ventilation fixture was demonstrated. Then, using detailed information from breathing-zone air sampling, the phase-two controls reduced respirator requirements to a posted zone called the Airborne Radioactivity Area, or ARA, around the exit conveyors and the glovebox exit ports.

The third phase discontinued the practice of decontaminating the exit ports and seal areas after each drum exit. This was the activity with the greatest potential risk to personnel from radioactive contamination. Survey information was gathered to ensure drum exits could be performed without the undue risk of spreading contamination to the surrounding Radiological Buffer Area, or RBA.

Once sufficient operational history was gathered on the new set of controls, phase four was implemented. These new controls allow employees to perform the drum exit operation without wearing respirators. To ensure contamination levels are maintained with ALARA in mind, phase-three controls are used to perform a set of drum exits and the exit port and seal area are decontaminated after four sets of drum exits, consisting of eight drums.

The WRAP facility has been able to double its TRU drum processing capability by performing decontamination only periodically or when necessary, installing an improved ventilation fixture, and reducing radiological controls based on the lower risk of spreading radioactive material. Further improvements should allow up to 10 drums a week to be processed.

The process changes have not resulted in a spread of radioactive contamination to the surrounding RBA. The exit activity now requires fewer resources, and the reduction of the required personal protective equipment results in less physical stress for the workers performing the activity. The team effort made this phased reduction of controls a real ALARA success story. ♦

Kohrt named to lead Battelle

A former Kodak executive, Carl F. Kohrt, has been selected as the next president and chief executive officer of Battelle. Kohrt succeeds Doug Olesen, who retires later this year after 14 years at the helm.

Battelle, based in Columbus, Ohio, operates the Department of Energy Pacific Northwest National Laboratory in Richland. Battelle also is a partner in the contractor teams that manage DOE's Oak Ridge National Laboratory in Tennessee, Brookhaven National Laboratory in New York and the National Renewable Energy Laboratory in Colorado.

Kohrt started his 29-year career with Kodak as a researcher. Moving up through the ranks, he served the company in a wide range of technical, international and senior executive roles, eventually becoming Kodak's executive vice president and chief technology officer.

He is credited with developing and commercializing color imaging systems, revamping Kodak's intellectual property process, championing diversity within the corporation and leading business initiatives in Asian markets that helped make Kodak the market leader in China.

Kohrt holds a bachelor's degree in chemistry from Furman University, a master's degree in management science from the Massachusetts Institute of Technology and a doctorate in physical chemistry from the University of Chicago. ♦



Kohrt

Duratek's Aromi joins CHG

Ed Aromi, president and general manager of Duratek Federal Services of Hanford and vice president of Fluor Hanford's Waste Management Project, joined CH2M HILL Hanford Group on Aug. 17 as executive vice president and chief operating officer.

"Ed has an outstanding record of success, and we at CH2M HILL look forward to utilizing his 20 years of experience in leadership and management of large commercial environmental operations and projects," said CHG President Fran DeLozier.

Aromi came to Hanford in 1996 with the contract changeover. During his time with the Fluor-Duratek team, he has been responsible for facilities associated with the management of waste. He has held management positions in several large commercial environmental operations, including the country's largest commercial hazardous waste treatment and incineration complex.

Aromi has bachelor's and master's degrees from Loyola University in Chicago. He serves on the boards of numerous local organizations including TRIDEC, the Tri-City Area Chamber of Commerce and United Way.

Also effective Aug. 17, Terry Moore was named acting director of the Waste Management Project, succeeding Aromi. Moore has served in several different leadership positions within Waste Management since coming to the site in 1996. Most recently, he has been the project's director of Performance-based Incentives. ♦



Aromi

Office supplies via the Web

Beginning Sept. 4, the Corporate Express E-Way Web pages at www.eway.com for ordering office products through E-Store will have a new look. This site has been redesigned to provide end users with a simpler method to locate and order more than 300 office products frequently used at Hanford. These items have a new pricing structure, which will result in significant cost savings. Items not found on this template can be located by searching the Corporate Express online catalog.

Here is some information on products in the E-Store supplier catalogs:

- **Badge Holders** – The two-pocket badge holders with clips (Item No. PSS80S) are now stocked, as well as the clear vertical dosimeter badge holder with slot punch (Item No. PSS10880551).
- **Teri-Wipes** — Kimberley Clark has discontinued this item, but a replacement product is available from the Service Paper E-Store site (Item No. IFC-420N). ♦

ORP prime contractors conduct vendor forum tomorrow

Bechtel National, Inc. and CH2M HILL Hanford Group, Inc., the two prime contractors for the Department of Energy Office of River Protection, will sponsor a vendor forum from 5 to 6:30 p.m. on Tuesday, Aug. 21, in the auditorium at 3000 George Washington Way in Richland. The forum is an opportunity for vendors to learn how to do business with BNI and CHG. Upcoming procurement opportunities will also be described. The evening's special topic will be supplier quality assurance programs.

Register for this vendor forum by sending an e-mail message to tlwallac@bechtel.com. Space is limited to the first 150 registrants because of the room capacity. Additional vendor forums on Sept. 18, Oct. 23 and Dec. 11 are scheduled for the same location and time of day. ♦

Regular Features



LETTERS

Employees are invited to write letters of general interest on work-related topics. Anonymous letters will not be printed. We reserve the right to edit letters or not to accept letters for publication. Send your letters to the *Reach*, B3-30, or to *Hanford Reach on e-mail. Letters are limited to 300 words, and must include your name, company, work group and location. Opinions expressed are those of the author and not of DOE-RL, ORP or their contractors.

Different memorial

Why is the warhead that was donated to Richland High School prominently displayed on Stevens Drive?

I can't help but think that the gaudy green and gold warhead is disrespectful not only to victims of war but also to those who worked on the bomb at Hanford. The honor those workers deserve does not include decorated weapons of destruction.

It is vital we remember the history of Hanford, and it is imperative we understand that Hanford's historical significance remains in its role in the cessation of World War II.

Monuments to peace, not warheads, should be lining the roads to Hanford.

Erin Donahoe

AWU/CHG Intern

CLASSES



Hazards analysis to be taught Sept.17-21

The Process Safety Institute, sponsored by the Department of Energy Richland Operations Office, will be teaching the course Hazard Analysis: Consequence Analysis Methods on Sept.17-21. Several spots are available for contractor employees. The cost for this course is \$1,198.

This course will teach the methods used throughout the industry for quantitatively assessing the consequences of hazardous material releases (toxic and flammable). In addition, students will study practical consequence models and the assumptions behind the models (as well as their limitations). The role of the consequence assessment in performing quantitative

risk assessments and in estimating risk will be discussed. The course provides the theory and practical applications of consequence assessment methods. Students will participate in several workshops to gain experience in practical hands-on application of consequence analysis methods.

For more information, visit PSI's Web page located at <http://www.abs-jbfa.com/psi.html>. Visit the Parallax Web page at <http://www.parallax-engr.com> and then visit the DOE-RL Office of Training Services where you will find instructions for registration for this course. For additional information, call Marcy George at 376-8284.

Study CAD at CBC

Columbia Basin College will offer Computer Aided Drafting courses at this fall. Courses begin September 17 and end December 5.

- **AutoCAD I**, Tuesdays, 6-10 p.m.
- **AutoCAD I**, Fridays, 8 a.m.-12 p.m.
- **AutoCAD II**, Thursdays, 6-10 p.m.
- **3-D**, Mondays, 6-10 p.m.
- **Drawing Production**, Wednesdays, 6-10 p.m.

Tuition is approximately \$200 per 3-credit course. AutoCAD I and AutoCAD II are prerequisites for the other courses. It is possible to test out of AutoCAD I. CAD certificate is available for students who fulfill all course requirements. For more information or assistance in enrolling, contact Steve Jette at sjette@cbc2.org or at 547-0511, ext. 2274.

Continuing Training Offered at HAMMER

The Volpentest HAMMER Training and Education Center offers Continuing Training Offering Plan sessions regularly. There is no charge for participation in the sessions, but students must register in advance. Register online at <http://www.rl.gov/trs/ctop/ctop.htm>. Click on the selected session and complete the registration form, or send an e-mail message to Vikki Ballew with student name, Hanford identification number, organization name (not code), company name, session date and session title. Upcoming sessions include:

Continued on page 18.

Regular Features



CLASSES cont.

- **Integrated Training Electronic Matrix (ITEM)** – Aug. 21 and Dec. 5, 7:30 a.m. in room 16. ITEM is the site-wide program for tracking training requirements. This session includes a general overview of ITEM, discusses how to access various reports and provides an explanation of the role instructional staff members may play in providing input that feeds into the system.
- **Applying the SAT Model to Driver Performance Improvements** – Aug. 23, 7:30 a.m. in room 12. This session identifies the processes involved in developing training activities using the DOE Systematic Approach to Training (SAT) Model as described in DOE-HDBK-1078-94 and prescribed in DOE Order 5480.2A.
- **Dealing with Training Disrupters** – Sept. 5, 7:30 a.m. in room 12. This session covers types of classroom distractions, student motives, what actions are allowed, prevention methods and class-solicited recommendations.
- **S/RIDs: What They Are and How They Apply to Training Activities** – Sept. 12, 7:30 a.m. in rooms 18 and 19. This session will provide a history and overview of standards/requirements identification documents as they apply to the Project Hanford Management Contract.
- **A Hands-on Approach to Procedure Process Training** – Oct. 17, 7:30 a.m. in room 11. This interactive session provides an example of how one organization used a novel approach to provide procedure compliance expectations training.

Washington State University Tri-Cities classes:

- **Statistical Methods for Management** (Decision Science 412) – Tuesdays and Thursdays, 4:15-5:30 p.m., 3 credits. The course covers analysis of variance, regression models and non-parametric statistics as applied to business.
- **Principles of Management and Organization** (Management 301) – Tuesdays and Thursdays, 1:30-2:45 p.m. or 5:45-7 p.m., 3 credits. The course covers principles of management and administration aimed

at improving the effectiveness of all types of organizations.

- **Personnel and Human Resources Management** (Management 450) – Tuesdays and Thursdays, 7:15-8:30 p.m., 3 credits. The course covers policy and practice in human resource utilization; selecting, training, motivating, evaluating and compensating employees; labor relations and equal employment opportunity legislation.
- **Database Management Systems** (Management Information Systems 372) – Tuesdays and Thursdays, 5:45-7 p.m., 3 credits. The course covers database management systems and non-procedural languages, principles of file design and optimization.
- **Electronic Commerce and the Internet** (Management Information Systems 375) – Mondays and Wednesdays, 5:45-7 p.m., 3 credits. The course covers capabilities of the Internet to support and enable electronic commerce, effective design and implementation, and managerial issues.

Fall semester classes start Aug. 27 and run through Dec. 15. To sign up for any of these classes, call the registrar's office at 372-7350 or check the WSU Tri-Cities home page at www.tricity.wsu.edu and follow the "Apply now" link. Once you have been admitted, you may register for classes by calling 372-7250 or online by using the University's METRO service at www.metro.wsu.edu. If you have questions about the courses, call the Business Department at 372-7360.

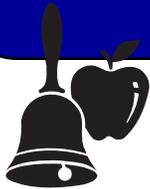
Safety classes offered at HAMMER

D2000 Safety Solutions will offer the classes listed below at the Volpentest HAMMER Training and Education Center. All classes qualify for Continuing Education Units.

- **Confined Space Rescue** – Aug. 23-25. Cost is \$695. The course is designed to meet the requirements of the OSHA standard 29 CFR 1910.146. Participants are taught to recognize confined space hazards, assess potential hazards during a mock rescue and learn the requirements of the new laws.

Continued on page 19.

Regular Features



C L A S S E S cont.

- **Trench Rescue** – Sept. 5-7. Cost is \$695. The course is designed for individuals or organizations that provide trench rescue services. Subjects include scene assessment and safety; team organization; emergency shoring using speed shores, screw jacks and lumber; patient packaging, ropes and related equipment; and mechanical advantage systems. Scenario-based exercises will measure student competency.
- **Confined Space Train the Trainer** – Oct. 2-5. Cost is \$695. The course covers the OSHA standard 29 CFR 1910.146. The course focuses on tunnels, sewers, boilers and other spaces adequate in size and configuration for employee entry, with limited means of egress and not designed for continuous employee occupancy. Hands-on scenarios are also included. Students will conduct actual confined-space entries.

To register for any of these courses, contact D2000 Safety Solutions at (800) 551-8763 or visit the Web site, www.d2000ss.com. ♦



N E W S B R I E F S

Early submittal of timecards necessary for holiday weekend

The upcoming Labor Day facility closure day on Sept. 3 necessitates the early processing of payroll. Fluor Hanford Payroll will process payroll for the week ending Sept. 2 on Thursday, Aug. 30.

To ensure prompt and accurate payment on Friday, Sept. 7, employees of Fluor Hanford, Duratek, Numatec, Day & Zimmermann Protection Technology Hanford, DynCorp Tri-Cities Services and CH2M HILL Hanford Group are requested to have all timecards for the week ending Sept. 2 submitted and approved no later than 9 a. m. on Thursday, Aug. 30. Please estimate your time for the remainder of the workweek, including anticipated overtime for Friday, Saturday and Sunday.

Managers are required to delegate Time Information System (TIS) approval if they will be unavailable to approve timecards by the Thursday morning deadline. The TIS will be unavailable for corrections until Wednesday, Sept. 5. All

approved corrections for the pay period ending Sept. 2 will be reflected on a future paycheck.

Your cooperation with this schedule will enable payroll to process and distribute paychecks as scheduled. Fluor Hanford Payroll appreciates your understanding and cooperation. For more information, contact Todd Beyers at 376-2815. ♦

C A L E N D A R



PNNL sponsors workshop Aug. 30

Pacific Northwest National Laboratory will host the workshop, "Rainmaking in a Capital Drought: Everything You Need to Know About Raising Capital in this Dry Climate," on Thursday, Aug. 30, from 8 a.m. to 5 p.m. at PNNL in Richland.

This workshop will give entrepreneurs the practical knowledge necessary to assess, structure, position and present their ventures to maximize their opportunities for receiving equity financing. Three equity experts from Seattle will lead the workshop. The cost is \$30 and includes lunch. Space is limited and entrepreneurs will be given preference. For more information, visit the Web site at <http://www.pnl.gov/edo/rainmaking.stm> or contact Gary Spanner at 372-4296 or gary.spanner@pnl.gov.

Register by Aug. 22 by contacting Gracie Downard at 375-2803 or gracie.downard@pnl.gov.

Learning Landscape Child Care Center

The Department of Energy-sponsored Learning Landscape Child Care Center has openings for infants, toddlers and pre-school children 3-5 years old. Contact Sharon or Suzanne at 946-4609 to enroll or obtain more information about the center. The center offers an educational curriculum for infants, toddlers and preschoolers.

NAPM holds meeting on Sept. 6

The Sept. 6 meeting of the National Association of Purchasing Management will feature Bill Craven, the Northwest regional manager for Audit, Compliance and Business Ethics for Bechtel National, Inc. The meeting will be held at the WestCoast Hotel in Kennewick. The educational workshop begins at 5 p.m., the social at 6, and the dinner and program at 6:30. The cost is \$14.50. Call 372-7201 for reservations. ♦

Regular Features



H.anford **E**.mployee **R**.ecreation **O**.rganization

PLEASE MAIL YOUR TICKET REQUESTS TO THE APPROPRIATE LISTED TICKET SELLER — It saves the ticket sellers' time and your tickets will be sent to you the same day.

SUGGESTIONS WELCOME — If you have an event or travel/trip destination that you would like HERO to consider, or a mini-trip (under four days) that you would like to host, send an e-mail message to your area representative with specifics. Although HERO cannot guarantee your suggestion will be offered, all reasonable suggestions will be considered.

HRA — Questions about the Hanford Recreation Association should be directed to Denise Prior at 376-2258.

HERO POLICY FOR NSF CHECKS — Associated non-sufficient fund bank fees will be passed on to check issuers. HERO will not absorb the cost.

HOLIDAY GREETING CARDS CATALOGS — Are now available through Employee Printing Services. Books can be checked out from Marvene McChesney at T4-61 (West area).

AREA REPRESENTATIVES AND SECRETARY NEEDED — Area representatives are needed for the 600/400 and 200E Area and Yakima. The position of secretary to the HERO Board is also open. If you are interested, if your company is part of the Fluor Project Hanford team and if you have your manager's approval, e-mail Phyllis Roha.

SILVERWOOD THEME PARK — Check out HERO's Intranet Web site for a complete schedule of days and times. Adult tickets are \$18.50 (normally \$25.30), youth (ages 3-7) and senior (65 and over) tickets are \$10 (normally \$16.87). Send checks made payable to "HERO" to Linda Meigs (H3-12), Tricia Poland (T5-04), Nancie Simon (S7-64) or Chris Kagele (S7-60). Personal checks in excess of \$250 will not be accepted. Send a cashier's check or money order for payments in excess of \$250. No cash, please!

DISCOUNTED MOVIE TICKETS — Limit now 10 per purchase. Carmike tickets are \$4.50 each with restrictions applying only to Sony DDS movies. Regal tickets are \$5 each and applicable restrictions are identified in the *Tri-City Herald* with a star. Yakima Mercy tickets are \$5 each with no restrictions. For Regal or Carmike tickets, send checks made payable to "HERO" to Linda Meigs (H3-12), Linda Sheehan (T4-40), Nancy Zeuge (X3-74), Michelle Brown-Palmore (A7-51) or Patti Boothe (T6-04). For Yakima Mercy tickets, send checks to Flu Garza (T4-01) or Nancy Zeuge (X3-74).

PENDLETON ROUND UP — Saturday, Sept. 15, at 1:15 p.m. 80 tickets available at \$13 each. Tricia Poland (T5-04) has tickets.

UPCOMING TRIPS

- **Portland Shopping Spree** — Sept. 28-30. Last chance. We will leave Friday morning and return Sunday afternoon. The trip cost is \$170 ppdo for two nights lodging at the DoubleTree Inn at Lloyd's Center and round-trip bus. \$25 non-refundable deposit is required at signup. Final payment is due Friday, Aug. 24. Sunday brunch will be available at the hotel for \$11.99. At press time, the hotel is adding a \$3-per-room, per-night charge (plus taxes) in response to the energy crisis. This charge is temporary and may not be in effect at the time of our trip. E-mail Marvene McChesney (T4-61) for information and deposits. Check the HERO Web site for more details on shopping.
- **Puerto Vallarta, Mexico** — Nov. 6-13, Price dropped \$100 to \$725 ppdo, \$665 triple, \$612 quad and \$1,026 single. \$150 pp deposit required to reserve your spot. Major credit cards are accepted but 3 percent is added to the charge. Trip includes eight days and seven nights accommodations at the five-star Villa del Palmar Hotel on the beach in a studio unit; round-trip transfers from the airport to the hotel; all air, hotel and departure taxes. The Villa Del Palmar offers a swimming pool, restaurants and bars, tennis court, fitness center, grocery store and 100 yards of white sandy beach. *Space is limited now*, so don't wait until the last minute to reserve your spot. E-mail Sheila Kirk (T4-05).

Continued on page 21.

Regular Features

- **Spirit of Washington Dinner Train** – Oct. 13, \$84 pp dome seating, \$69 pp regular seating. Price includes round-trip transportation by bus. (\$20 deposits are due Aug. 27 non-refundable for bus). Board the bus at 7 a.m. at the Federal Bldg. parking lot. The train leaves the depot in Renton at 12 p.m. Experience the nostalgia of passenger rail as you ride and dine in luxurious, vintage rail cars. The Spirit of Washington Dinner Train takes you on a three-hour, 15-minute excursion that showcases scenic views of the Puget Sound region including Lake Washington, the Olympic Mountains, the Seattle skyline and Mount Rainier. You'll dine in comfort and elegance as your journey takes you to Woodinville's beautiful Columbia Winery. During your 45-minute stopover, you'll visit the cellar and sample fine Pacific Northwest wines before returning to the depot. Return to Richland by bus. E-mail Tricia Poland for more information.
- **Leavenworth Bus Trip** — Dec 8. Leave from Federal Bldg. parking lot. \$27 pp non-refundable deposit. Limited seating, so reserve your space early. E-mail Marvene McChesney for more information. ♦



Vanpool ads are run for two weeks. Ads must be resubmitted to run in subsequent issues of the *Hanford Reach*. The deadline for submissions is Thursday, 10 days prior to publication.

Day & Zimmermann Protection Technology Hanford reminds employees to wear their badges. Vanpool and carpool drivers are responsible for ensuring riders are badged. If a passenger forgets his or her badge, Patrol must be informed at the barricades. For more information, look on the Hanford Web in the Projects and Activities section, Safeguards and Security at <http://www.rl.gov:1050/sas/pg1v3htm>.

PASCO

Vanpool No. 139 to 200E and 200W needs riders, 8x9, 7 a.m. to 4:30 p.m. Picks up at Road 100 Sleep Inn and at Federal Building. Contact **Robert Spears** at 372-0984 or **Sarah Larinaga** at 372-2826. 8/13

WEST RICHLAND

Vanpool No. 120 to 200E needs one 8x9 rider. Leaves Flat Top Park at 6:10 a.m. Drops off at 2750-E, WESF, 2727 and 2025-EA. Contact **Marion** at 372-0383. 8/20

YAKIMA

Two openings for vanpool riders to 200W, 8x9. Picks up in Yakima at 40th Ave. Bi-Mart only. Contact **Ed Boettcher** at 373-4345. 8/13 ♦