



HANFORD FORWARD



COVER STORY

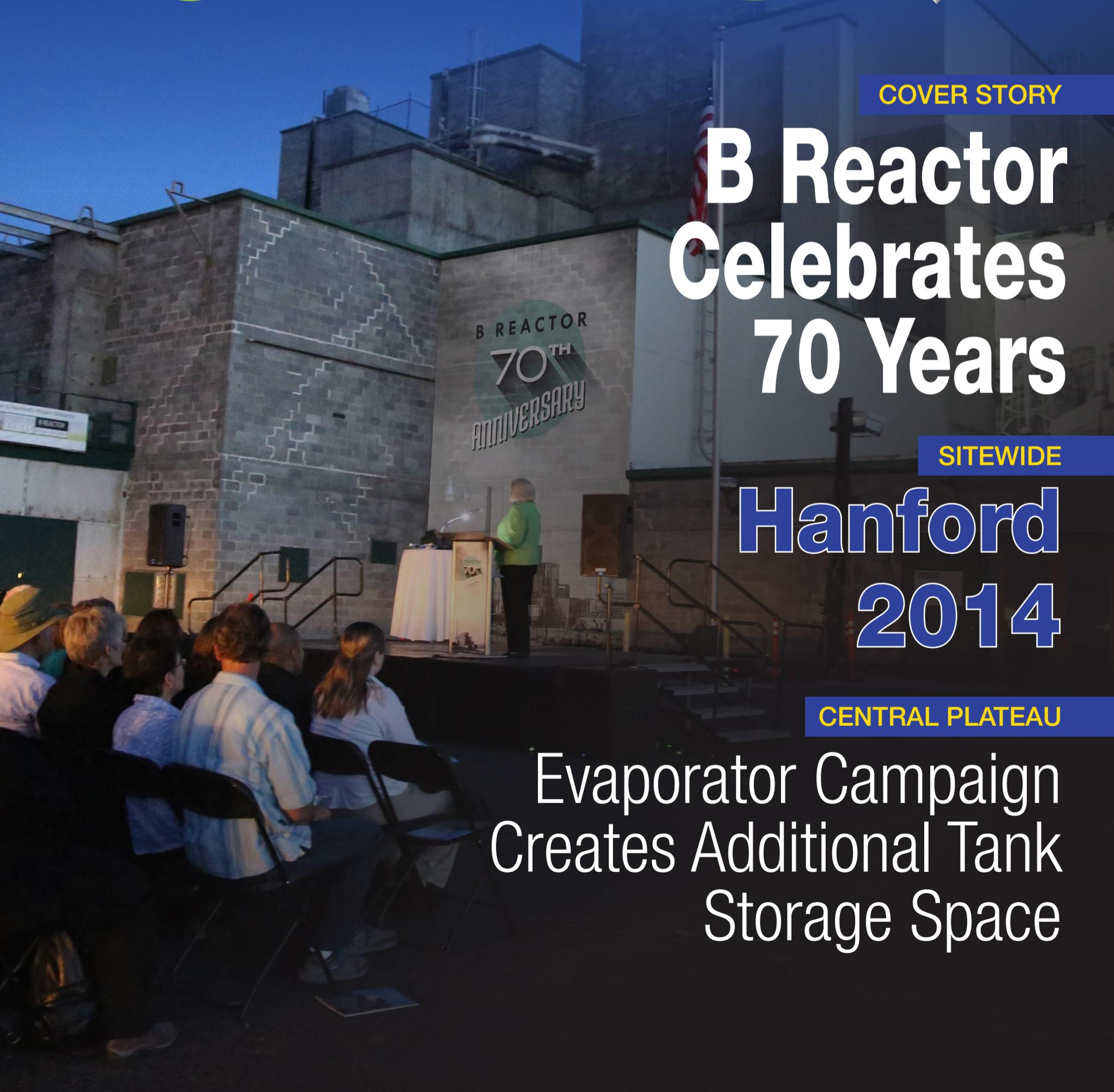
B Reactor Celebrates 70 Years

SITEWIDE

Hanford 2014

CENTRAL PLATEAU

Evaporator Campaign
Creates Additional Tank
Storage Space



ABOUT HANFORD



U.S. DEPARTMENT OF ENERGY
Richland Operations Office

The Richland Operations Office (RL) oversees cleanup along the Columbia River and in Hanford's Central Plateau, including groundwater and waste site cleanup, management of solid waste, spent nuclear fuel and sludge, facility cleanout, deactivation and demolition, environmental restoration, plutonium management, and all site support services.



CH2MHILL
 Plateau Remediation Company

CH2M HILL Plateau Remediation Company (CH2M HILL) is the prime contractor for the safe, environmental cleanup of the Central Plateau at the Hanford Site. This task includes decommissioning and demolishing the Plutonium Finishing Plant that once stored secret material for the nation's defense, cleaning up plumes of contaminated groundwater beneath the site, and removing highly radioactive "sludge" away from the Columbia River.

HPMC OCCUPATIONAL MEDICAL SERVICES

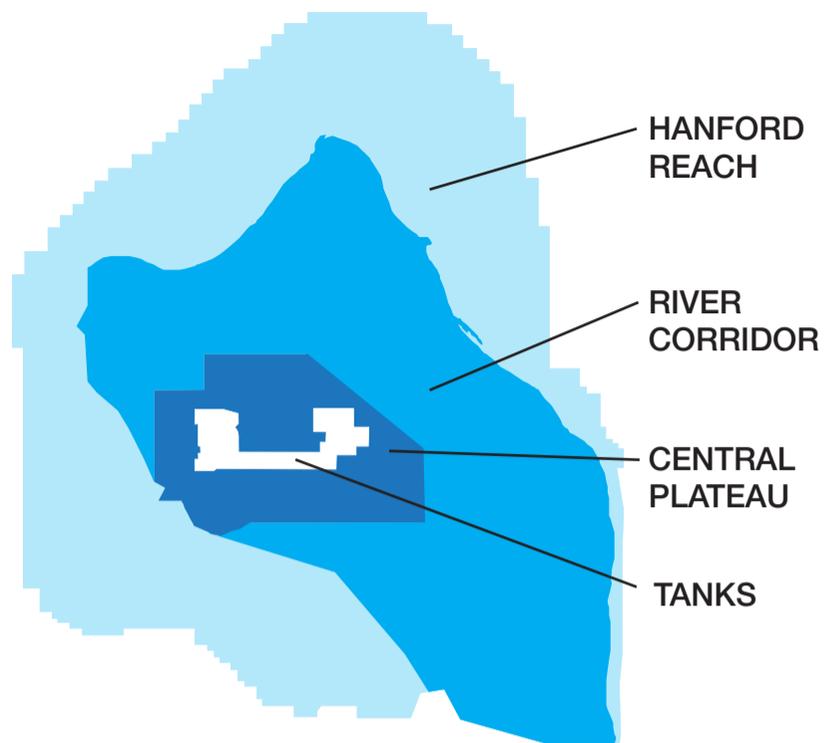
HPMC Occupational Medical Services (HPMC OMS) provides occupational medical services to the Department of Energy and Hanford prime contractors and subcontractors. HPMC OMS has clinics in Richland and in the 200 West area of the site and is responsible for the medical surveillance, medical qualification, health, and wellness needs of more than 7,500 Hanford workers.



A joint venture between Lockheed Martin, Jacobs Engineering and WSI, Mission Support Alliance (MSA) is responsible for safely and effectively managing and operating the infrastructure of the Hanford Site. MSA provides an array of services, including training, site security, roads and utilities, logistics and transportation, information resources, information technology and other services, enabling Hanford contractors to focus on their cleanup efforts.



Washington Closure Hanford (WCH) manages the 220-square-mile River Corridor Closure Project for the Department of Energy's Richland Operations Office at the Hanford Site. The project is the largest environmental cleanup closure project in the nation. Washington Closure, owned by URS, Bechtel and CH2M HILL, is responsible for demolishing 320 contaminated buildings, cleaning up an estimated 590 waste sites, placing two former plutonium production reactors and one nuclear facility in interim safe storage, and managing the Environmental Restoration Disposal Facility.



UNITED STATES DEPARTMENT OF ENERGY
OFFICE OF RIVER PROTECTION

The Office of River Protection (ORP) is responsible for the retrieval, treatment and disposal of Hanford's 56 million gallons of radioactive tank waste, currently stored in 177 underground tanks in the central part of the site. In support of this mission, ORP manages the Tank Operations Contract and the Waste Treatment & Immobilization Plant Project.



Advanced Technologies and Laboratories International, Inc.

Advanced Technologies and Laboratories (ATL) International, Inc. is an award-winning technology, engineering, scientific, and project management services provider to the U.S. Department of Energy. ATL operates the 222-S nuclear laboratory that is fully compliant with the most stringent business, safety, health, quality, and technical requirements in the country. In 2008, ATL was awarded DOE's Voluntary Protection Program (VPP) Star award for outstanding health and safety performance at the Hanford Site.



Bechtel National Inc. is designing, building and commissioning the world's largest radioactive and chemical waste treatment plant. URS is BNI's principal subcontractor. The Waste Treatment and Immobilization Plant is being built for the U.S. Department of Energy at the Hanford Site in southeastern Washington state. When completed, it will be used to solidify the radioactive liquid waste stored in 177 aging underground tanks using a process called vitrification.



washington river
protection solutions

Maintaining the underground waste storage tanks at Hanford falls under the jurisdiction of Washington River Protection Solutions (WRPS). This organization is responsible for storing and retrieving the approximately 56 million gallons of nuclear and chemical waste stored in these tanks at the Hanford Site. WRPS is owned by URS Corporation and Energy Solutions, with AREVA as the primary subcontractor.

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Community Reflects on Pivotal Moment in History with **B Reactor**

Buses carried about 200 members of the community by the remains of an old high school, bank, and other relics of former Hanford town sites once home to tens of thousands of workers who produced plutonium for the Manhattan Project, World War II, and the Cold War. The visitors arrived at a celebration where historians, elected officials, and others shared recollections of the national landmark known as B Reactor.

They gathered to commemorate the world's first production-scale nuclear reactor, marking exactly 70 years since its official startup at 10:48 p.m. on Sept. 26, 1944, and enjoy refreshments and music from that era.

David Klaus, Department of Energy deputy under secretary for management and performance, who was involved in the early efforts to have the reactor recognized as a national landmark, offered remarks on behalf of DOE.

Klaus was among a handful of recipients of a special award from the Hanford History Partnership for significant contributions toward the preservation of the Manhattan Project legacy.

“Congratulations to everyone here for having done something so wonderful for this country.

The success of the B Reactor did not end with the conclusion of World War II.”

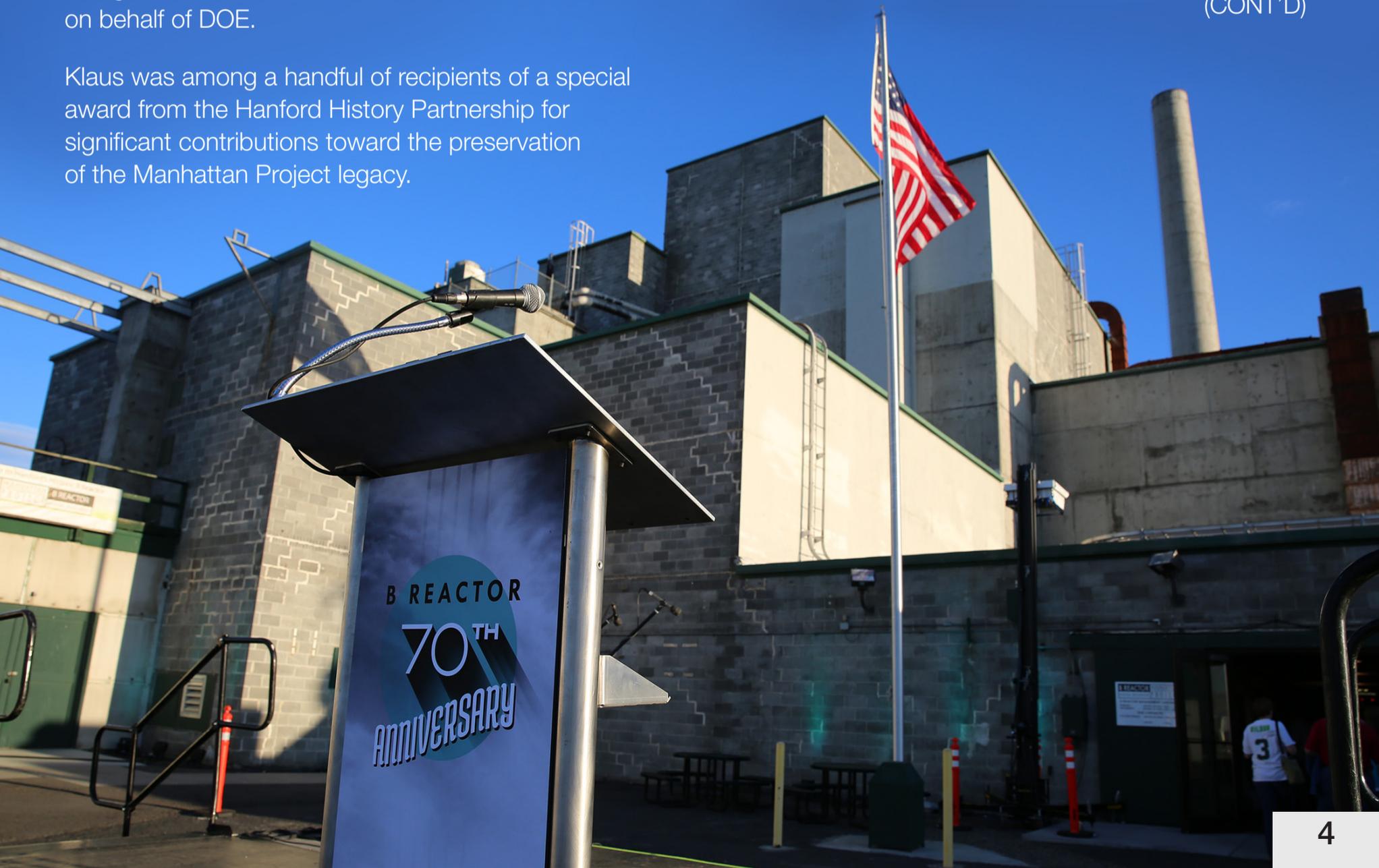
David Klaus, Department of Energy deputy under secretary for management and performance

“I can't tell you how proud I am to have been part of this with all of you,” he said.

Docents, among them former B Reactor workers, gave tours of the facility, which was shut down in 1968.

Mindi Linqvist, state director for U.S. Sen. Patty Murray, read a tribute to the B Reactor that had been entered into the Congressional record.

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B Reactor (cont'd)

DOE's Richland office came together with the Hanford History Partnership to organize the event. Other organizations that worked on the event include the Tri-City Development Council, Visit Tri-Cities, the City of Richland, and the B Reactor Museum Association.

"What's meaningful is that EM and the community partnered on an event to showcase such an important moment in our nation's history," said EM's Richland Operations Office government programs manager Colleen French, who serves as the B Reactor Preservation Project Manager. "I think it exemplifies how far we've come in working together to preserve it and tell its story to future generations." French emphasized that capturing history from this wartime era becomes all the more necessary as years go by. ■

David Klaus, DOE under secretary for management and performance, speaks to people gathered for the 70th anniversary of the startup of the B Reactor.



"We mark 70 years since startup of B Reactor and as more time passes, it becomes even more urgent that we find and record memories of all those associated with the Manhattan Project and Cold War. As important as facilities are, it's the people and stories that make the history come alive."

Colleen French, EM's Richland Operations Office government programs manager and B reactor preservation project manager

New SIMULATION TRAINING Gets Workers *OUT* of CLASSROOM

WTP Safety Assurance is rolling out a new hands-on training course to assist in improving employees' abilities to identify hazards in the work environment.

"We've done a lot of classroom and computer-based training," said Jerry Fasso, WTP field safety assurance manager. "This training is designed to mirror the work environment, outside of the classroom, while trying to increase retention of the lessons being taught."

WTP Safety Assurance set up two work stations in the Pretreatment Facility canyon area. Each includes a scenario similar to what would be found at work stations on the construction site.

Each station has a number of issues to identify related to safety, training, environmental, industrial hygiene, STARRT safety analysis card signoff, etc. Employees are to record all the hazards they identify. "In terms of how many there are, let's just say there are between 1 and 50," Fasso said.

The first scenario involves installing pipe supports and structural steel using an aerial lift. The second scenario involves drilling into concrete at height. They plan to have 12-14 scenarios that would change out periodically.

"We've made this hard on purpose," Fasso said. "The work in the first scenario is covered by 16 different procedures. However, that's typical of the 10-16 procedures that govern most work tasks."

So far, only managers, foremen, general foremen and supervisors have been through the first two scenarios. "The intent is to sharpen their eyes when it comes to identifying and correcting adverse behavior when performing their oversight function," Fasso said.

The training sheds light on the complexity of the requirements to perform work at WTP. "We've incorporated that complexity into the scenarios," Fasso said. ■

Ray Charvat (right), area superintendent, and Joe Frank, assistant superintendent, identify hazards as part of new, hands-on training. WTP Safety Assurance developed the simulations to supplement classroom and computer-based training.



Assistant Secretary for EM Mark Whitney Visits Hanford



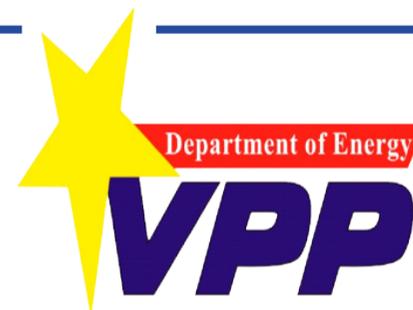
Tank Farms Assistant Manager Tom Fletcher (right) briefs Mark Whitney, acting assistant secretary for Environmental Management (second from left) and Alison Markovitz, senior advisor to the energy secretary, at one of the Hanford tank farms.

Acting Assistant Secretary for EM, Mark Whitney, spent two days at Hanford, one with the Office of River Protection (ORP) and one with the Richland Operations Office (RL). He was joined by Alison Markovitz, senior advisor to the secretary, Todd Shrader, the headquarters program director for the Waste Treatment Plant and Tank Farms, and Candice Trummell, EM director for external affairs.

Having been here earlier in the year, Whitney visited the 100-K Area, the Plutonium Finishing Plant, the 200 West Pump-and-Treat Facility, and the Central Waste Complex. He also took a tour of the B Reactor National Historic Landmark.

Later in his visit, Whitney was the guest of honor at a community reception, hosted by TRIDEC and other community leaders. ■

WRPS RECEIVES National VPPPA AWARD



Washington River Protection Solutions (WRPS) President and Project Manager Dave Olson and Safety and Health Manager Clint Wolfley have been awarded the 2014 Voluntary Protection Program Participants' Association (VPPPA) Safety and Health Outreach Award by the VPPPA National Board of Directors.

The purpose of the Safety and Health Outreach Award is to recognize Voluntary Protection Program models who reach out to share the safety, health, technical and management expertise developed at their worksites.

Among WRPS' outreach activities was SafetyFest Tri-Cities, which provided free safety training for local

small businesses, agriculture groups and other organizations. WRPS also initiated a health and safety mentoring program that supplied course information to universities that included Central Washington University and Boise State University. WRPS also donated \$1,000 to the American Red Cross to improve safety and health outreach efforts in the Tri-Cities.

"This is truly an impressive and commendable accomplishment," said Tom Webb, VPPPA strategic development and member services manager. "Dave Olson and Clint Wolfley deserve credit and acknowledgement for placing such a high personal priority on the safety of WRPS employees at Hanford." ■

Washington Closure Hanford Uses **Explosives** to Clean **Below-Grade** Reactor Structure



Since the removal of the 1,100-ton Plutonium Recycle Test Reactor (PRTR) in January 2014, Washington Closure Hanford (WCH) in the 300 Area successfully fractured the below-ground parts of the structure for excavation by using explosives. The PRTR is the last of the six test reactors in the 300 Area and represents another major cleanup.

Explosives were chosen over the typical heavy machinery because of the thickness of the concrete. The structure reached as deep as 60 feet below grade and had 5- to 13-foot-thick concrete walls that once supported and shielded the test reactor.



The broken-up debris that remains after the explosive demolition is being removed and transported to the Environmental Restoration Disposal Facility for disposal.

Nearly 1,000 pounds of explosives were detonated during the successful below-grade demolition at the site of the former Plutonium Recycle Test Reactor.

“Some walls and the deck were made of a heavy aggregate concrete, which is almost twice as dense as regular concrete,” said Mark French, federal project director of the River Corridor. “This made the demolition especially challenging.”

WCH hired Controlled Demolition Incorporated (CDI) to perform the demolition. CDI drilled approximately 300 holes into the deck, columns, and walls of the structure. Once drilling was complete, they loaded the charges into the holes for the demolition.

By using the explosives, there was a cost savings of approximately \$1.5 million. The savings came from machinery repairs that would have been necessary had the same work been done using traditional demolition techniques. It also was the safer approach for workers who would have had to dismantle the structure with machinery from above and work down in the 32-foot-deep structure.

Once the load out of the rubble from the explosion is complete, the area where the PRTR once stood will be sampled. If the area meets cleanup standards, some of the remaining structure that is 60 feet deep will be left in place and backfilled. If not, a second demolition will be scheduled for further cleanup in 2015. ■

DOE, Washington Closure Hanford COMPLETE RECYCLING PROJECT

About \$400,000 saved by recycling electrical substation components in 300 Area

The U.S. DOE and contractor Washington Closure Hanford teamed up to complete a major recycling effort during cleanup of the Hanford Site.

The work involved removing an electrical substation in the north end of Hanford's 300 Area that was the center of Hanford's radiological research and nuclear fuel fabrication facilities for nearly 60 years.

Cleanup of the 300 Area is part of the River Corridor Closure Project. The River Corridor is a 220-square-mile section of the site that borders the Columbia River and is DOE's largest environmental closure project.

To complete the recycling effort, WCH worked with a small business, Transformers Technologies of Salem, Ore., on a "materials for service" contract. The contract allowed Transformer Technologies to keep the recovered material—copper, steel and oil—as payment.

A local company, Lampson Crane of Kennewick, performed the rigging and lifting activities. The entire project took about two months to complete. Transformer Technologies previously removed and recycled two other substations in the 100 Area. The substations near B Reactor and the D and DR reactors were demolished in early 2014.

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Copper, steel, and oil recovered during demolition will be recycled by Transformer Technologies.



Complete Recycling Project (cont'd)

Mark French, federal project director said of the River Corridor, “Recycling the substation material saves taxpayers \$400,000. Because the subcontractor received payment by recycling the recoverable material, we saved cleanup funding, eliminated the repair costs associated with the wear and tear on equipment and we freed up workers to concentrate on other Hanford cleanup projects.”

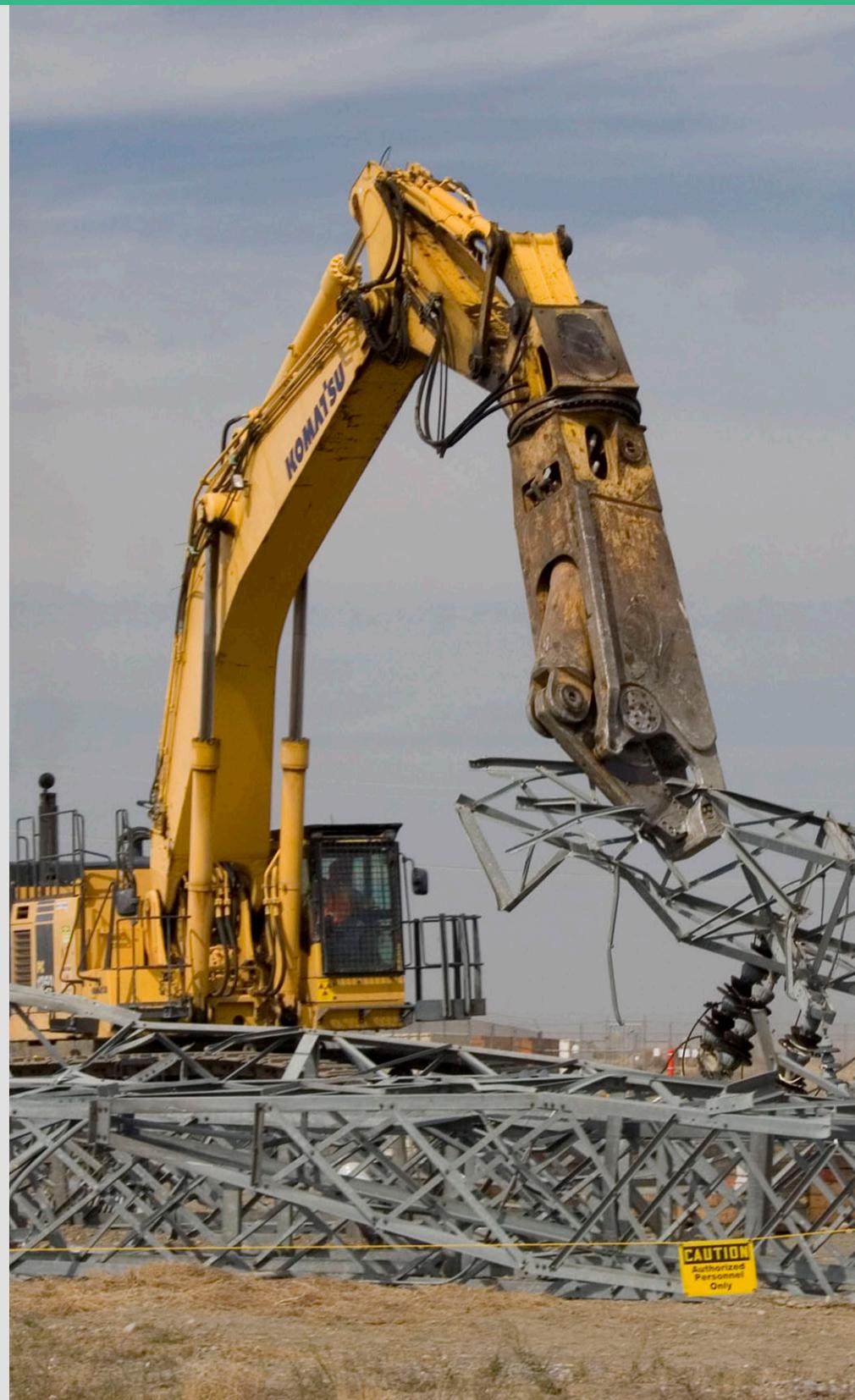
The substation was constructed in 1949 and expanded as needed to meet the growing needs for power in the 300 Area. It is the third substation WCH has removed under a recycling contract since beginning work on the River Corridor in 2005.

Mark Allen, who oversaw the project for WCH, said all of the work was performed safely and compliantly, and resulted in the recycling of more than 400,000 pounds of transformer, oil, circuit breakers, wire, and other electrical components.

“More than 16,500 gallons of PCB-contaminated oil was safely shipped off of the Hanford Site to licensed facilities in Oregon and Alabama for reprocessing and reuse.”

Mark Allen, Washington Closure Hanford

Transformer Technologies specializes in dismantling and recycling used electrical equipment and has access to disposal and reprocessing facilities authorized by the U.S. Environmental Protection Agency. All of the substation components were sampled for polychlorinated biphenyl (PCB) contamination; the scrap metal is treated and the PCB-contaminated oil is processed to remove the PCBs. ■



Over 16,500 gallons of PCB-contaminated oil has been safely shipped off the Hanford site to licensed facilities in Oregon and Alabama for reprocessing and re-use.

Washington Closure **BACKFILL** Campaign is Under Way in **100 AREA**

726,000 tons of clean material was used to backfill 98 waste sites at 100-N Reactor Area. Revegetation will occur in the late fall or early spring.

The Hanford Site is known for the nine plutonium production reactors built during World War II and the Cold War. Surrounding the reactors were hundreds of buildings that supported reactor operations. Once operations ended in the 100 Areas, Washington Closure Hanford was assigned to clean up the 220-square-mile River Corridor where the reactors are located.

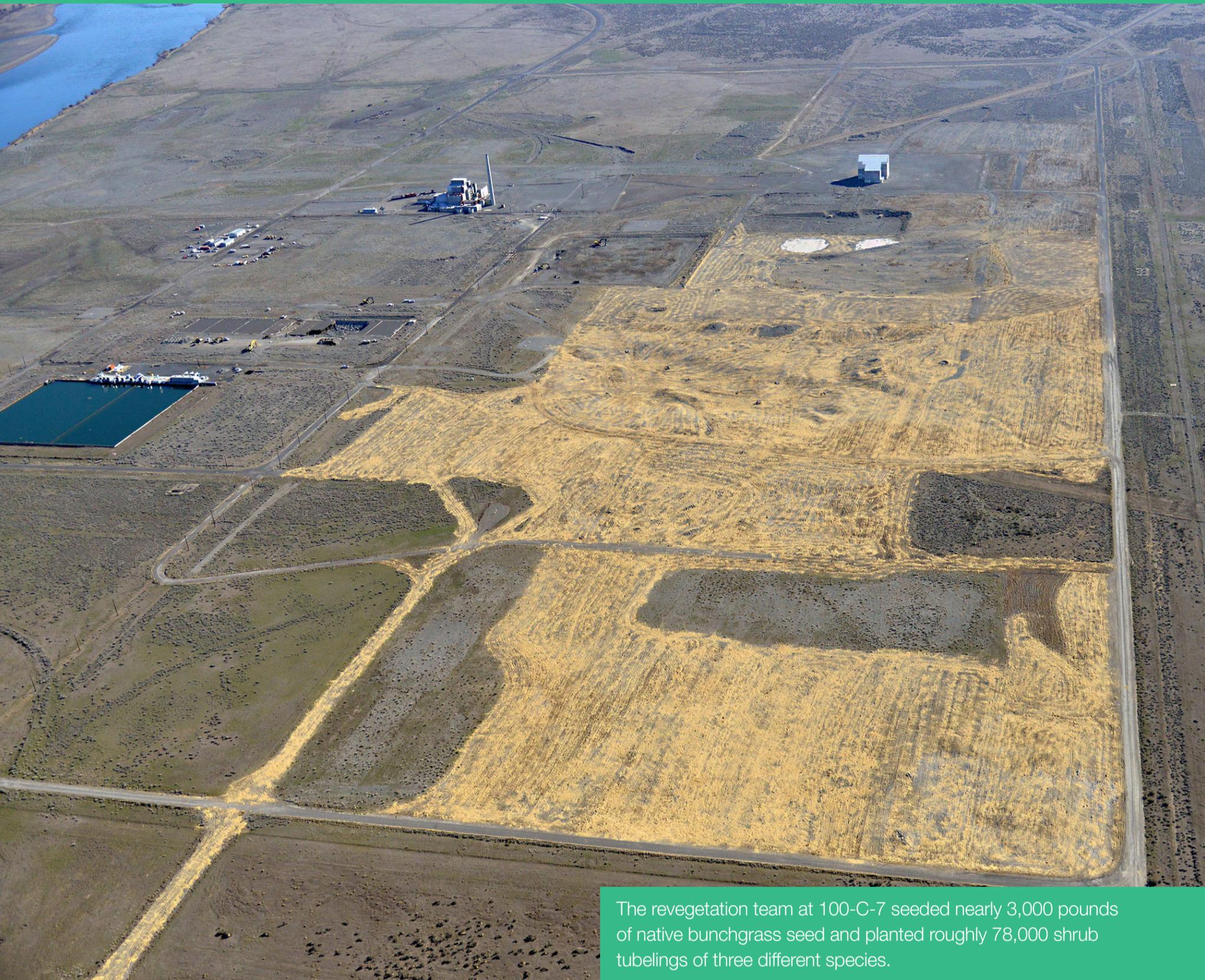
Workers are in the process of completing a backfill campaign at cleaned-up waste sites in the 100-B/C, 100-D, 100-F, 100-H, 100-K, and 100-N Reactor Areas, as well as the IU2 & 6 sites. Once the backfill is complete, workers will begin to revegetate the areas. WCH is expecting to use a total of 3 million tons (34,000 truck-loads) of clean material from the Hanford Site to complete the backfill campaign. To date, 1.2 million tons of clean material has been used at the 100 B/C Reactor Area, and 726,000 tons of clean material was needed at the 100-N Reactor Area. It will take close to a year to complete the backfill work at the 100-D and 100-H Reactor Areas, and then revegetation will be completed during the winter planting season.

RESTORING CLEANED-UP AREAS

In the 100-B/C Area, the C-7 area was a massive restoration project covering more than 120 acres. The C-7 waste site, consisting of two 85-foot-deep holes, reached groundwater, and has been called the prototype for backfilling and revegetation—the site was backfilled and recontoured, resulting in a more natural looking landscape. As a result, the team was able to save money and promote a better habitat.

“As part of restoration and recontouring efforts we also helped the project create a plan for strategic redistribution of a large number of boulders that had previously been unearthed during remediation activities,” said James Bernhard, WCH natural resources lead. “We created pockets throughout the backfilled area and incorporated the boulders to provide another dynamic source for wildlife habitat. By doing so, we were able to save the company money and, more importantly, promote a more natural looking and sustainable habitat for wildlife.”

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The revegetation team at 100-C-7 seeded nearly 3,000 pounds of native bunchgrass seed and planted roughly 78,000 shrub tubelings of three different species.

Backfill Underway (cont'd)

The same was done at the 100-N Reactor Area. The backfill will be about 14 percent below flat grade for areas where a backfill design is not already in place. The backfill campaign will leave the area with a more natural looking appearance. The revegetation season will occur in the late fall to early spring.

MEETING MILESTONES SAFELY AND ON TIME

In the last 20 months the backfill team has met six Tri-Party Agreement milestones on schedule, and since

backfill started in 2007, the backfill subcontractors have successfully and safely met a total of 20 Tri-Party Agreement milestones. The backfill and revegetation team was able to perform all cleanup activities without a recordable injury.

“We were able to reduce risk of injury by communicating and working together as a team,” said Ron Morris, WCH’s subcontract technical representative on the project. ■

HANFORD 2014

It's been a busy year across the Hanford Site. In Fiscal Year (FY) 2014, workers completed the majority of work planned for the year. This included the complete decontamination and demolition of the 11 remaining surplus facilities, the remediation of 1.8 billion gallons of contaminated groundwater and the complete cleanup of chromium contamination at several waste sites in the 100 area.

The table below highlights some of the cleanup accomplishments that have been made to date along with the tasks that remain.



SQ MILES	Footprint of active cleanup reduced to 160 sq miles	53 sq miles of additional footprint reduction	107 sq miles cleanup remaining
SITES	1,165 sites remediated	74 sites remediated	1,066 sites remaining
FACILITIES	805 facilities demolished	33 facilities demolished	823 facilities remaining
GALLONS	8.44 billion gallons treated	1.8 billion gallons treated	Ongoing
TANKS	10 tanks retrieved	4 tanks retrieved	Ongoing
TONS	15.3 million tons of soil, debris sent to ERDF*	1.4 million tons sent to ERDF	Ongoing
	1989 – FY13	FY14	Future

Other important accomplishments include the disposition of 25 pencil-shaped tanks at the Plutonium Finishing Plant and the complete cleanup of the 618-10 Burial Ground Trenches.

The accomplishments of the past year are examples of how all of the contractors have worked together to ensure progress toward a safe and successful cleanup of the Hanford Site. This could not have been done without the dedication and commitment of everyone involved. ■

*Environmental Restoration Disposal Facility

Workers Enter COCOONED F REACTOR for Scheduled INSPECTION

Inspection ensures reactors are safe, secure

Workers from Mission Support Alliance removed the welds around the steel door of the F Reactor in October before stepping inside the reactor to complete its periodic inspection. This is the first time the Department of Energy (DOE) has had the reactor open since 2008.

The F Reactor is one of nine reactors along the Columbia River at the DOE's Hanford Site, where environmental cleanup has been ongoing since 1989.

As part of the Tri-Party Agreement, the DOE completes surveillance and maintenance activities of cocooned reactors periodically to evaluate the structural integrity of the safe storage enclosure and to ensure confinement of any remaining hazardous materials.

“This entry marks a transition of sorts because the Hanford Long-term Stewardship Program, for the first time, was responsible for conducting the entry and surveillance and maintenance activities. As the River Corridor cleanup work is completed and transitioned to long-term stewardship, our program will manage any on-going requirements.”

Keith Grindstaff, DOE Long-term Stewardship Program manager

The F Reactor, the last of the three original plutonium production reactors constructed during World War II, operated from 1945 to 1965. The reactor was sealed in a secure, cocooned state in 2003. The cocooning process, also called interim safe storage, allows time for radiation levels to decay.

Workers from MSA inspect a wall as a part of the 5-year inspection of the F Reactor. The reactor was found to be in good shape.

“This inspection gives us an opportunity to conduct radiological surveys, make any repairs to the roof and remove any hazardous substances. During the inspection, workers found the reactor to be in good shape and almost identical to the last time it was inspected.”

Rick Moren, MSA director of Long-term Stewardship

With the inspections complete, the reactor door has been re-sealed until the next entry period.

As a part of DOE's Long-term Stewardship Program, workers will inspect four other cocooned reactors—C, D, H and N—next spring. A sixth cocooned reactor, DR, was inspected in 2013 and is not included in the 2015 entry schedule.

Note: A link to the YouTube video of the F Reactor inspection is at <http://youtu.be/xwtqEMKbgll> ■



242-A Evaporator Campaign Creates ADDITIONAL TANK STORAGE Space



LEFT PHOTO: The 242-A Evaporator is operated from a central control room where waste from Hanford's tanks is processed to remove excess water, creating additional double-shell tank storage. CENTER and RIGHT PHOTOS: The 242-A Evaporator's first campaign in nearly four years removed almost 800,000 gallons of liquid from the double-shell tanks.

The 242-A Evaporator, operated by the Office of River Protection's (ORP) Tank Operations Contractor, Washington River Protections Solutions (WRPS), recently completed a processing campaign, removing 791,000 gallons of excess water from Hanford's double-shell tanks of high-level radioactive and chemical waste.

"This campaign was very successful," said Mat Irwin, ORP Tank Farm Operations Division Director. "We've reduced the waste volume in the double-shell tank inventory by nearly 800,000 gallons. This was right on target with our engineering calculations based upon the steam condensate system upgrades."

Built over three years beginning in 1974, the 242-A Evaporator launched its initial waste volume reduction campaign in 1977. Since then, more than 60 campaigns have been completed, removing nearly 68 million gallons of water from tank waste and reducing the volume stored in the double-shell tanks to make room for waste retrieval from single-shell tanks. The evaporator's last campaign was in October 2010.

"The 242-A Evaporator is critical to the safe and timely cleanup of Hanford's tank waste," said Irwin. "The evaporator creates additional storage space in the double-shell tanks, which allows the contractor to retrieve, transfer and store waste from single-shell tanks until it can be permanently disposed."

Before being processed in the evaporator, waste is analyzed to establish its makeup. This information is used to determine how the waste acts during and after the evaporation process, and how much water can be safely removed. The liquid waste is then pumped to the evaporator through double-walled underground transfer lines, where it is heated in a sealed vessel under a vacuum such that the boiling point of the waste is reduced to 125 degrees Fahrenheit. This temperature is 100 to 110 degrees lower than normal for tank waste slurry to boil under typical atmospheric pressure. The vapor is then captured, condensed, filtered, sampled and sent to the nearby Liquid Effluent Retention Facility for further treatment and storage. The remaining slurry is returned to the tanks.

"We completed numerous upgrades to help ensure the facility remains operational," said Brian Von Bargen, the 242-A Evaporator manager at WRPS. "They included new engineered safety systems, an upgraded steam condensate system, a new dip-tube flush system, upgraded instrumentation for 88 instruments, and new feed and slurry jumpers."

Additional waste volume reduction campaigns are scheduled in fiscal year 2015 to reduce another 1.4 million gallons of liquid in the double-shell tanks. ■

Workers Begin *Cleaning Out* Hanford's *Historic* **McCluskey Room**

*Safely cleaning out room is key step toward
Plutonium Finishing Plant demolition*



Workers have entered one of the most hazardous rooms at the Hanford Site to begin final cleanup of a room that became known by the name of a worker injured there in a Cold War-era accident.

A crew with contractor CH2M HILL Plateau Remediation Company donned specially designed suits to protect them from contamination before entering the “McCluskey Room” at the site’s Plutonium Finishing Plant. One of the first tasks for the crew is improving ventilation and airflow to better protect workers from the airborne contamination in the room as they clean out the room and its equipment.

“This was the first of multiple entries workers will make to clean out processing equipment and get the McCluskey Room ready for demolition along with the rest of the plant. It has taken a year to prepare for this first entry. The time and effort workers put into finding the right equipment and training will ensure they are as prepared as possible to remain safe during the cleanup.”

Bryan Foley, acting federal project director for the Department of Energy
Over the next year, workers will remove large pieces of processing equipment, including glove boxes and tanks. Glove boxes are large, sealed containers with windows and glove ports that allow workers to manipulate equipment inside while protecting them from contamination in the containers.

The room was used to recover americium – a highly radioactive plutonium byproduct – during the Cold War.

The space is commonly referred to by workers as the “McCluskey Room,” after worker Harold McCluskey was injured in 1976 when a vessel inside a glove box burst and exposed him to radioactive material. McCluskey, who was 64 at the time, lived for 11 more years and died from causes not related to the accident.

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Bryan Harting, nuclear chemical operator for CH2M HILL Plateau Remediation Company, was part of the crew that made the first entry to begin final cleanup of the McCluskey Room at Hanford’s Plutonium Finishing Plant in September.

Hanford's Historic McCluskey Room (cont'd)

Numerous hazards remain in the room as a result of the accident, including airborne radioactivity and surface contamination. For this work, employees are using advanced supplied-air systems and protective suits never before used on the Hanford Site. The suits offer better protection from surface contamination and chemicals, improved communication, and a dual-purpose air system that provides purified air for breathing and cool air throughout the suit. The system keeps workers cooler, allowing them to work safer and for longer periods of time.

Since 2008, the Department of Energy and contractor CH2M HILL have been preparing the Plutonium Finishing Plant for demolition by removing much of the equipment and infrastructure inside the building that was once used for plutonium processing. Of the plant's 238 glove boxes, 224 have been removed or cleaned out and readied for removal during demolition. Out of 81 buildings that made up the plant during its history, 63 have been removed.

“The employees helped choose the equipment, trained on the equipment, and gave us feedback on its performance in training. Their input helped us make some adjustments along the way and has been the key to being able to enter the room safely as we start this challenging cleanup project.”

Mike Swartz, CH2M HILL's vice president for the Plutonium Finishing Plant closure project

MEDIA AVAILABLE:

- Video footage of an entry into the McCluskey Room: http://youtu.be/eANRwA_29k4
- Video of preparations to enter the McCluskey Room: <http://youtu.be/K-6bTvzBVA4> ■

WTP's *HLW IMPORT BAY CRANE* Placed

Waste Treatment Plant (WTP) workers placed a 12-ton overhead crane in the import bay of the High-Level Waste Vitrification Facility (HLW).

During operations, the crane will begin the process for preparing stainless steel canisters to receive vitrified high-level nuclear waste by transferring new, clean and empty canisters from a transport trailer in the truck bay to inside the HLW.

The overhead crane assembly spans 33 feet. It includes a double-girder bridge and top-running trolley and will be radio-controlled by an operator. Each canister is about 2 feet in diameter, 14.5-feet tall and weighs more than 4 tons.

A short video of the installation is available at http://youtu.be/rYLndhguNb8?list=UUthkCDmCCavQdQYtI_f5iKQ ■



The 12-ton high-level waste import bay crane will move stainless steel canisters from the transport trailer to the inspection/rotation table.

Hanford Releases INTERACTIVE GROUNDWATER Report

Aerial of Hanford's 100-D Area along the Columbia River, which is served by one of five pump treat systems along the Columbia River that are helping shrink areas of contaminated groundwater.

The U.S. DOE has released the Hanford Site Groundwater Monitoring Report for 2013. The report is produced annually to share data about the progress being made in cleaning up contaminated groundwater beneath the site.

The contamination resulted from Hanford's historic plutonium production operations, when chemical and radioactive wastes were released into the environment and contaminated the soil and groundwater beneath portions of the site. Since the 1990s, DOE has worked to remediate this contamination.

The annual groundwater monitoring report is a key part of DOE's commitment to share information about the site's extensive groundwater monitoring program.

“The online viewing tool is easy to access and makes the information easier to understand. As opposed to the printed report, the online version is more engaging and offers several tools that help share and engage readers in the information.”

Naomi Jaschke, DOE's project lead

“The report is an important tool for sharing information with our stakeholders about the progress we are making

A screenshot of the new interactive online viewing tool for the Hanford Site Groundwater Monitoring Report.



in cleaning up the site. The goal of the interactive report is to improve our efforts by automating data retrieval, providing user-friendly data access, and maintaining transparency of all report content,” said Bill Faught, CHPRC's groundwater sciences group manager.

The interactive report contains the same text and figures as the static paper copy, but also offers video tutorials to guide the reader through the report and its features. Additional advantages over previous years' reports include:

- User-friendly navigation to quickly move to each report section and to display entire report chapters at a time.
- Enhanced tools to display and evaluate groundwater contaminant plumes, data, and geology.
- Enhanced charting tool to plot groundwater data including multiple wells or multiple contaminants at a time.
- Enhanced plume tool to view the Hanford groundwater plumes and data used to construct the plumes.
- Enhanced ability to export data into several electronic formats.
- A geology tool that allows readers to draw a cross-section at any orientation within the Hanford Site to display well information and geologic units.

The publically available report features a new interactive web-based viewing tool available to the public at <http://www.hanford.gov/c.cfm/sgrp/GWRep13/start.htm>. ■

DOE NAMES NEW RICHLAND OPERATIONS MANAGER

The U.S. Department of Energy (DOE) named Stacy Charboneau as the Manager of the Richland Operations Office (DOE-RL) at the Hanford Site. In this role, she will continue cleanup momentum along the Columbia River, help shrink the Department's active cleanup footprint, and continue safe groundwater remediation and hazardous waste and facilities disposal operations across the Hanford Site.

"Stacy is a talented and seasoned senior executive with tremendous technical and managerial expertise on all aspects of the Hanford cleanup," said Mark Whitney, acting assistant secretary for Environmental Management. "Her education, technical and programmatic expertise, and past experience make her uniquely qualified to lead the talented workforce responsible for completing the next and critical phase of the important RL cleanup work."

Charboneau brings more than 20 years of Hanford experience from both RL and the Office of River Protection (DOE-ORP) and holds the highest project management certification level available in the Department.

Charboneau has been the Acting Deputy Manager of RL since June 2014. She has held several key leadership

positions, including Acting Deputy Manager and Assistant Manager for Safety and Environment at RL, ORP Deputy Manager and Chief Operating Officer, ORP Tank Farms Project Assistant Manager and RL Deputy Assistant Manager for River Corridor cleanup. Before joining EM in 1994 as an engineer in the Waste Operations Division, Charboneau worked for the Naval Undersea Warfare Center in Keyport, Washington.

RL is responsible for much of the cleanup of the 586-square-mile Hanford Site. In the first two decades of cleanup, RL has completed eighty percent of the cleanup activities along the Columbia River, moved all of the site's 2,300 tons of spent nuclear fuel to dry storage away from the river, shipped all of the weapons grade plutonium once stored at the Plutonium Finishing Plant off the site, demolished 838 of 1,661 excess facilities, remediated 1,241 of 2,307 waste sites, placed five former plutonium production reactors in interim safe storage, and treated 11 billion gallons of contaminated groundwater. ■



Stacy Charboneau, new manager of the Richland Operations Office (DOE-RL) at the Hanford Site

TANKS

Report Recommends Improvements for Managing Tank Vapors

DOE's tank farm contractor, Washington River Protection Solutions (WRPS), this summer took an important step to address improvements in the management of tank farm vapors. WRPS chartered the Savannah River National Laboratory (SRNL) to conduct an independent assessment of tank farm vapor exposure. The SRNL team included a Hanford Atomic Metal Trades Council member as part of the review process to ensure worker insight and feedback was incorporated into the final recommendations.

The SRNL independent report, completed in October, provides WRPS and DOE with additional insight and

recommendations on how to build on the steps that have already been taken to reduce vapor exposures in the tank farms. The report also identifies several areas where additional research is needed to better understand and further decrease vapor exposures. WRPS, with DOE's support, began implementing many of the key recommendations while the report was still in draft form.

DOE will use the results of the report to institutionalize improvements to ensure enduring changes are made to the tank farms and ORP industrial hygiene programs that will protect workers in the near term and into the future. ■



“Quit It” Program Helps Hanford Kick Nicotine Addiction

Many tobacco users think they can quit whenever they want. But quitting a nicotine addiction is much harder than people think, especially with conflicting priorities of home and work.

For each reason people start using tobacco, there are just as many reasons people want to quit. They may be concerned about their health. They may want to save money, have more energy, or be a positive role model. Their family and friends may be voicing concerns.

HPMC Occupational Medical Services understands the extreme hold that nicotine can have on a person. Quitting tobacco is a process that sometimes ends in failure, but with each quit attempt, users become closer to being tobacco free. In 2009, HPMC developed the “Quit It” Tobacco Cessation Program to give Hanford employees the best possible chance at living a tobacco-free life. Since then, over 190 Hanford employees have enrolled in the program.

Using the most up-to-date education and clinical guidelines from the U.S. Department of Health and Human Services and the Mayo Clinic Nicotine Dependence Center, the “Quit It” program provides one-on-one health coaching, a weekly educational support group, and appropriate over-the-counter products at no cost to participants.

Since “Quit It” began, over 45% of participants who completed the 10-week the program were still tobacco-free after six months. This is an excellent success rate and a tribute to the dedication of both staff and participants in creating a healthier Hanford! In addition to the obvious health benefits of quitting tobacco use, employee participants report having higher self-esteem, greater productivity at work, and more time to do the things they enjoy. ■



Hanford Advisory Board *CELEBRATES* *20 YEARS*

The Hanford Advisory Board (HAB) celebrated its 20th anniversary in November at the Red Lion Hanford House in Richland. The HAB was created by the Tri-Party Agreement agencies – Washington State Department of Ecology, U.S. Environmental Protection Agency and U.S. Department of Energy – to provide policy-level advice on Hanford cleanup issues.

