



EM RECOVERY NEWS

American Recovery & Reinvestment Act Newsletter

April 2011 | Issue 23

Skilled Workers Affected by Recession Find New Start in Oak Ridge Recovery Act Work

OAK RIDGE, Tenn. – Efforts to clean up waste from the Manhattan Project and the Cold War are under way at the Y-12 National Security Complex. The seven projects there funded by \$216 million from the American Recovery and Reinvestment Act are providing work for more than 1,500 Americans, many of whom had struggled in the recent recession.

One way Y-12 met the projects' demands for skilled craft workers was through an agreement with the Atomic Trades and Labor Council, a labor organization that facilitated the hiring of more than 125 of the workers for the projects.

Electrician Steven Poole was hired under that agreement to dismantle old

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Cover photo:

Because Y-12 has an ongoing mission, an important part of demolition is utility rerouting to ensure vital plant operations are not disrupted. Building 9735 was surrounded by an intersection of active utility wiring and piping that made demolition of the relatively small structure (15,000 square feet) more challenging.

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Recovery Act workers at Alpha 5 at the Y-12 National Security Complex at Oak Ridge, Tenn., survey waste as part of the characterization process to determine its proper disposition path.

April EM Recovery News Highlights Recovery Act Investment in Worker Safety, Training

“An Act making supplemental appropriations for job preservation and creation...”

The first words in the 72-page American Recovery and Reinvestment Act, signed into law in early 2009, stress the importance of an immediate goal: create new jobs and save existing ones. The U.S. Department of Energy Office of Environmental Management’s (EM) \$6 billion American Recovery and Reinvestment Act Program has committed to that goal since the start. More than 29,000 workers — full-time, part-time, and temporary — have benefited from EM’s Recovery Act funding. In this April issue, EM Recovery News draws attention to the EM Recovery Act investment in workers. Across America, the Recovery Act Cold War cleanup has touched thousands of individuals during a period of economic recession, placing them on new career paths with comprehensive, unique training on technical subjects such as regulatory compliance and hazardous materials handling. For example, Recovery Act workers at the Paducah Site in Kentucky received customized training through West Kentucky Community & Technical College. Maintenance mechanics learned plasma arc cutting to remove old piping from buildings to be cleaned up and torn down. And with safety being EM’s number one priority, all workers receive in-depth safety training. At Brookhaven National Laboratory in New York, Recovery Act workers gather each workday with supervisors and managers to review work hazards and safety controls. They are encouraged to discuss how operations can improve to further enhance safety. Each Monday, these workers discuss safety articles that reinforce concepts they learned in safety training. That’s one example — read about many others in this issue of EM Recovery News — that highlights how workers are gaining important on-the-job experience and thorough training in the Cold War cleanup that will prove to be instrumental in current and future jobs.



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Paducah Recovery Act Workers Receive Thorough Safety Training



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Safety Comes First for NNSS Demolition Projects



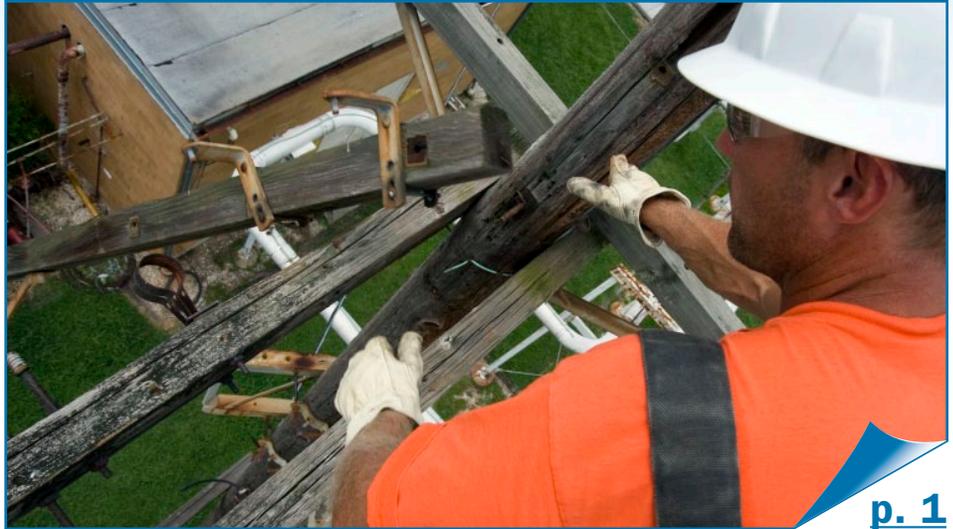
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Explosive Demolition Video Sets Record on Hanford's YouTube Site



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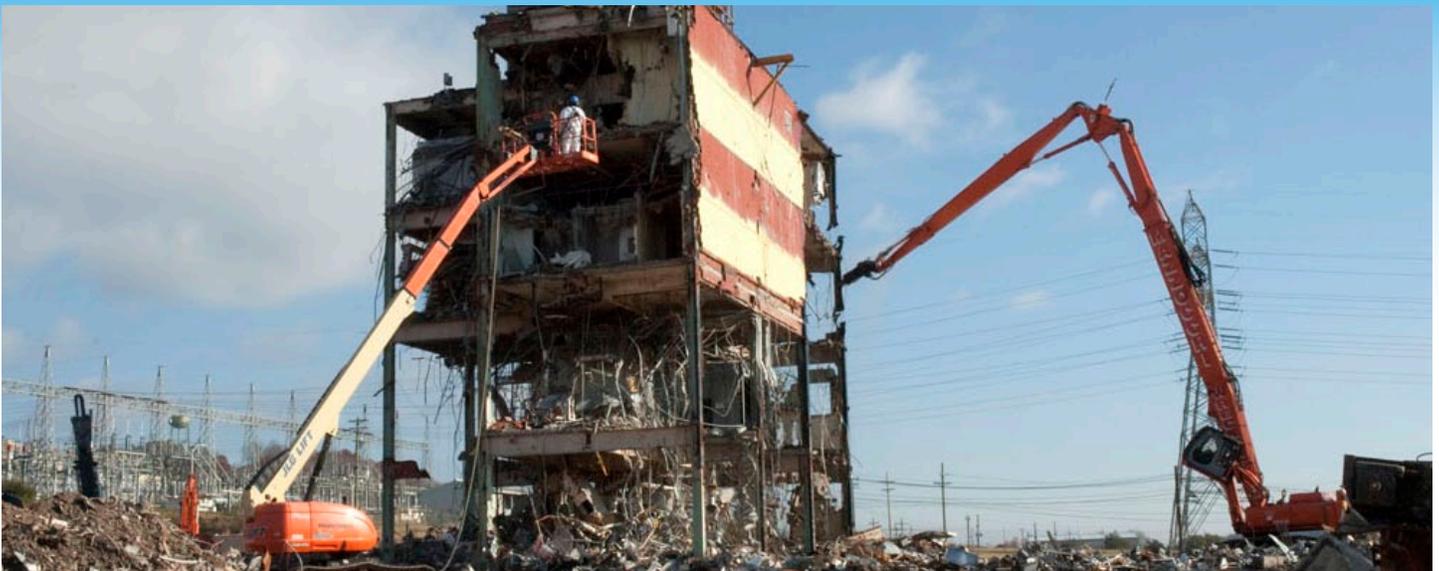
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Recovery Act Funds New Transuranic Waste Transportation Packages. [page 17](#)

In Recovery Act Cleanup of WWII Waste Site, Safety Means Preparing for the Unexpected [page 18](#)

A worker and trainers prepare for upcoming work at a Hanford facility. Each work task at the Hanford Site is different, so on-the-job, facility-specific training is one of several stages of training Hanford workers experience before beginning work at the site.





At a little over 83,000 square feet, Building 9211 was not the largest building ever demolished at Y-12 but at four stories, it was the tallest. Special large equipment was brought on site in several pieces and assembled to complete the task.



The Old Salvage Yard project called for cleanup and disposal of 31,000 cubic yards of scrap metal and debris from a seven-acre site. The yard was established in the early 1970s and was essentially an outdoor storage site for scrap metal and liquid wastes. The team used an “onion peel,” layer-by-layer approach for sampling and characterizing the waste to ensure safety and proper disposal.



Workers are preparing Alpha 5, a 613,000-square-foot former production facility, for eventual demolition by removing and disposing of legacy materials. The project includes dismantling legacy production equipment in contaminated areas.

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equipment in the Alpha 5 and Beta 4 buildings after being unemployed for six months due to a layoff.

Temporary Recovery Act Work Leads to Permanent Position

“Since this position was temporary, I thought I’d work here until I got a call-back from my previous employer,” Poole said. He later applied for an opening for a permanent electrician, and now holds a position in computer services at Y-12,

installing and repairing equipment.

Recovery Act crews are preparing the 613,000-square-foot Alpha 5 and an 82,000-square-foot portion of the Beta 4 for demolition. Both facilities date back to the 1940s and were used to store legacy material from past plant operations.

Y-12 also acquired the help of B&W Clinch River employees impacted by USEC Inc.’s downsizing of a manufacturing plant in the area. Those workers support Recovery Act projects in capacities such as project and radiological controls and maintenance.

Recovery Act Job Responsibilities Grow for Some Workers

Sara Templin’s experience in project controls and her security clearance made her an excellent fit for one of these Recovery Act jobs.

“My primary responsibility is waste and monthly reporting for each of the seven Recovery Act projects,” said Templin, whose duties continue to expand since she accepted a permanent position at Y-12.

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Recovery Act Workers Safely Decommission Brookhaven Nuclear Reactor

UPTON, N.Y. – The 60 Recovery Act workers tasked with decommissioning a nuclear reactor have worked in the project without a recordable occupational injury or illness, an accomplishment Brookhaven National Laboratory (BNL) attributes to its comprehensive safety training program.

The Recovery Act workers at BNL receive thorough safety training about the hazards they may encounter in the Brookhaven Graphite Research Reactor (BGRR) Project. The hazards, according to the Occupational Safety and Health Administration, include heavy equipment, electrical and chemical hazards, and scaffolds. In addition, managers work to maintain a safe workplace and continually seek to improve safety as required under the Lab's Environment, Safety and Health Policy.

The Recovery Act provided \$39 million to the Lab to decommission the world's first reactor built solely for peaceful research purposes. Completion of the reactor decommissioning, scheduled for later this year, will end EM legacy cleanup activities at the Lab.

Recovery Act workers are dismantling a 4,760-ton bioshield made of concrete and steel that surrounded a 700-ton graphite pile at the reactor's core. Last year, the workers safely removed that pile and shipped the graphite blocks to the Nevada National Security Site for disposal.

Each workday, workers at the Lab gather with supervisors and managers to plan work activities in what's known as a tailgate meeting. They review work hazards and safety controls, and are encouraged to discuss how operations can improve to enhance safety.

"Worker feedback is essential to continually improving safety performance," said Project Support Manager Chuck Schaefer. "Workers are the best source of information. We value their opinions."

Each Monday, workers at the tailgate meeting discuss safety articles, which reinforce concepts they learned in safety training.

Managers and supervisors frequently walk through the project area to observe workers and provide feedback on safety.

"This is the first DOE decontamination and decommissioning project I have worked on," said Bobby Atanasio, an equipment operator. "Much more attention is given to worker safety here than I have experienced before. Everyone watches out for each other."



Recovery Act workers use a torch cutter to remove a reinforcing bar on the Brookhaven Graphite Research Reactor's bioshield.



Equipment operators work to dismantle the Brookhaven Graphite Research Reactor's bioshield.

All workers receive training on topics such as radiological safety and torch cutting that will help them when they seek new jobs in the future.

"The training and work experiences will help the workers land good careers elsewhere as we finish cleanup here," BNL Environmental Restoration Projects Director Tom Jernigan said.

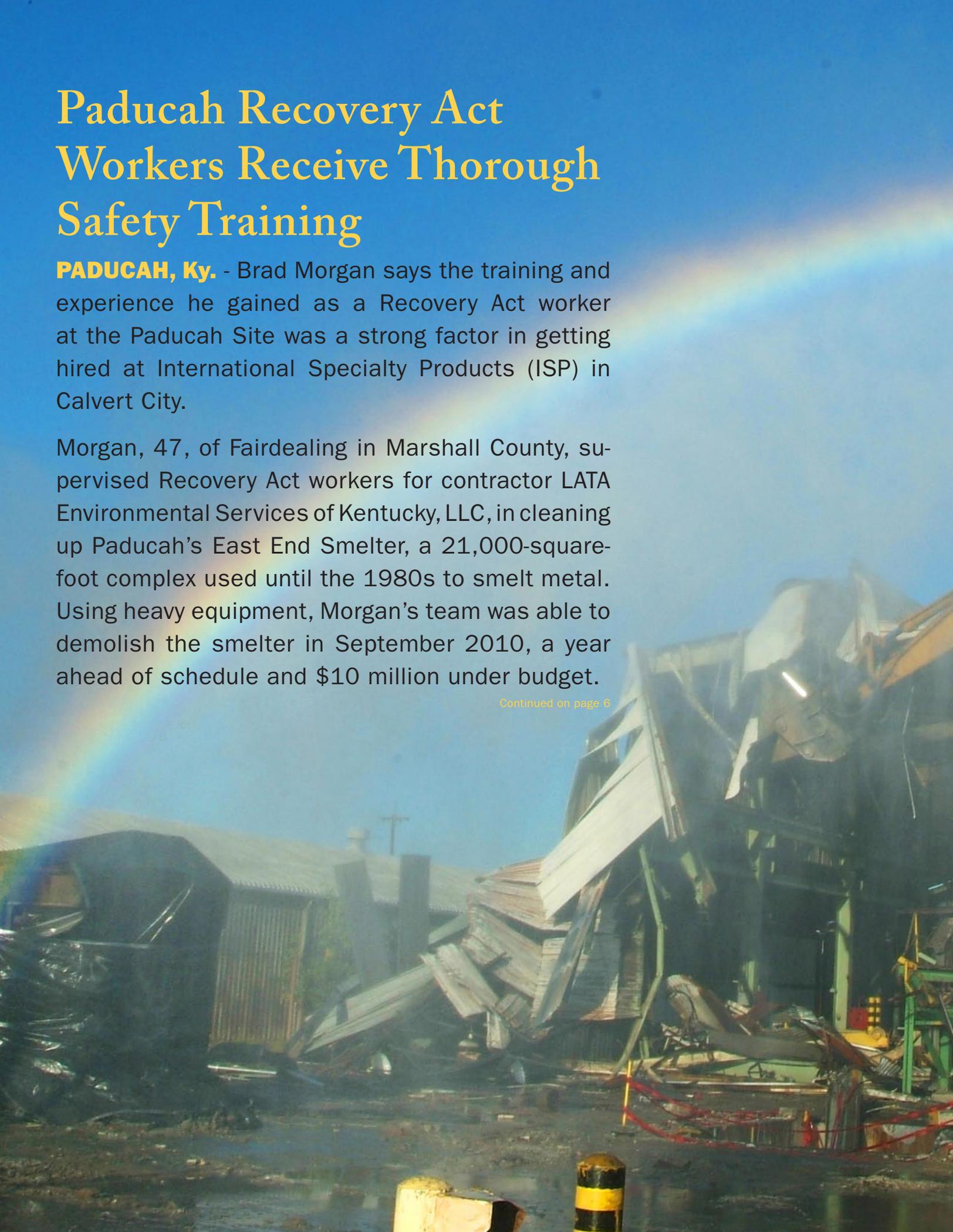
A work-related injury or illness must be recorded if it results in medical treatment beyond first aid, days away from work, restricted work or transfer to another job, loss of consciousness, death, or a significant injury or illness diagnosed by a physician or other licensed health care professional. □

Paducah Recovery Act Workers Receive Thorough Safety Training

PADUCAH, Ky. - Brad Morgan says the training and experience he gained as a Recovery Act worker at the Paducah Site was a strong factor in getting hired at International Specialty Products (ISP) in Calvert City.

Morgan, 47, of Fairdealing in Marshall County, supervised Recovery Act workers for contractor LATA Environmental Services of Kentucky, LLC, in cleaning up Paducah's East End Smelter, a 21,000-square-foot complex used until the 1980s to smelt metal. Using heavy equipment, Morgan's team was able to demolish the smelter in September 2010, a year ahead of schedule and \$10 million under budget.

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“ I had a great group of skilled people,” Morgan said. “I thought that was one of our greatest accomplishments.”

Brad Morgan stands in front of heavy equipment used to demolish the East End Smelter in September 2010. The Recovery Act worker supervised cleanup and destruction of the smelter before leaving the Paducah Site in January 2011 to work at International Specialty Products in Calvert City.



A rainbow appears over the Paducah Site's East End Smelter, a 21,000-square-foot complex used until the 1980s to smelt metal. Recovery Act workers used heavy equipment to demolish the smelter in September 2010, a year ahead of schedule and \$10 million under budget.



Recovery Act workers cut up equipment in 2010 in the East End Smelter at the Paducah Site.

Paducah Recovery Act Workers ...

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“The fact that I had training and experience to safely work with chemicals played a big role in being considered for my new job,” he said, noting that ISP has an intense interview process.

The 240 Recovery Act workers at Paducah underwent extensive training on hazardous materials handling, hazard communication, regulatory compliance, safety systems, use of self-protective gear, and operation of mobile equipment to be prepared for cleanup work.

They also received additional customized training through West Kentucky Community & Technical College. Maintenance mechanics learned plasma arc cutting to remove old piping from buildings to be cleaned up and torn down. Electricians studied how to safely track and dismantle long-unused electrical systems.

“The training these workers receive not only makes them qualified to do high-quality, safe work on our site, it also prepares them for good careers elsewhere as Recovery Act cleanup work comes to an end,” said Rob Seifert, DOE’s Recovery Act Project Manager at Paducah.

With Paducah’s projects funded by an estimated \$80 million from the Recovery Act coming to a close in September 2011, Morgan left the site in late January 2011 after working there 18 months. Ten days later he went to work for ISP, one of the region’s largest employers.

Morgan is proud of Paducah’s Recovery Act accomplishment with the smelter job, which set the pace for two other Recovery Act-accelerated cleanup and demolition projects involving the C-410 Feed Plant and the C-340 Metals Plant. He managed a crew of 30 workers wearing protective clothing and respirators. Twenty safety and health personnel assisted.

“I had a great group of skilled people,” Morgan said. “I thought that was one of our greatest accomplishments.” □

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Y-12’s apprenticeship program has proven invaluable to Recovery Act projects.

Recovery Act Workers Gain Unique, Extensive Skills

Jonathan Bowling, a second-year apprentice in the air-conditioning and refrigeration program, began Recovery Act work last summer. He already had the required security clearance and familiarity with Y-12 from previous work at the site.

“I started in 2001 working in the Y-12 Garage,” he said. “I applied for the apprenticeship program because it was such a good opportunity. I’d always wanted to learn in the air-conditioning and refrigeration program.”

The Recovery Act projects have allowed Bowling to broaden his skills with the extensive training required for work in a hazardous materials environment.

For projects requiring specific technical expertise, Y-12 subcontracted with local companies.

Joe Birchfield is a senior compliance specialist with Link Technologies. He has served as the site liaison for the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and Environmental Management Waste Management Facility since the start of Y-12’s Recovery Act projects in 2009.

“I have never been involved with such a challenging, historically significant cleanup effort. This truly is a massive team effort,” said Birchfield, who has worked for the Oak Ridge Office of Environmental Management since 1993. “All of us have been prepared for this large undertaking by receiving intensive, expert training.”

In addition to the work at Alpha 5 and Beta 4, Recovery Act projects at Y-12 include the West End Mercury Area storm sewer cleanup project, removal of soil contaminated with mercury, and the cleanup of a 7-acre scrap yard. In January 2011, Recovery Act workers completed the demolition of Building 9211 at Y-12, which reduced the footprint of the Cold War legacy by more than 83,000 square feet. □



Crews perform demolition of the R-MAD facility. R-MAD is one of several Nevada National Security Site facilities which supported the nuclear rocket program that ended in 1973.

Safety Comes First for NNSS Demolition Projects

LAS VEGAS – For more than two years, the Recovery Act has been instrumental in accelerating project schedules, increasing the scope of work, and expanding training for workers at the Nevada National Security Site (NNSS, formerly the Nevada Test Site).

While safety is considered the number one priority for all work conducted at NNSS sites, specific hazards call for specific training. This was no exception for the 30 additional workers hired with Recovery Act funds to perform demolition and debris removal at the historic Reactor Maintenance, Assembly, and Disassembly (R-MAD) and Pluto buildings.

Demolition crews with the subcontractor, DEMCO, are highly experienced with traditional safety issues associated with demolishing structures, such as falling debris and dust. In addition, the crews were required to receive special training in radiation and beryllium safety, as these contaminants had been identified at R-MAD and Pluto. Crews were also instructed on the Nevada Site Office integrated safety approach, which is a framework for analyzing project-spe-

cific risks and tailoring work controls to those identified risks.

“Simply stated, there is no shortcut to safety at the NNSS,” Deputy Federal Project Director Rob Boehlecke said. “Even though we are dealing with very experienced subcontractors, we always take the extra time to make sure that everyone has the knowledge they need and that all safety precautions have been addressed.”

In addition to taking extra training, crews gained daily experience with the protocols for working in a radiological facility, according to National Security Technologies subcontract technical representative, Reed Poderis.

“Working at a radiological site adds another layer of safety to field operations. Crews from DEMCO worked approximately 35,000 hours between the two sites with no recordable occupational injuries or illnesses and only two minor first aid cases,” Poderis said.

A work-related injury or illness must be recorded if it results in medical treatment beyond first aid, days away from

work, restricted work or transfer to another job, loss of consciousness, death, or a significant injury or illness diagnosed by a physician or other licensed health care professional.

More than \$8 million in Recovery Act funding went toward the demolition of R-MAD and Pluto, both of which played a major role in the nation’s past nuclear research programs. Work at R-MAD was completed in July 2010, and activities at Pluto ended in February of this year. The combined square footage of these facilities was 53,000 square feet.

The Office of Environmental Management at the Nevada Site Office was granted more than \$40 million from the Recovery Act to accelerate cleanup at the NNSS sites and expand waste management operations. More than 3,000 contaminated soil and groundwater sites resulted from operations supporting the nearly 1,000 atmospheric and underground nuclear tests conducted at the site. Recovery Act funding has expedited remediation of these sites. □

Recovery Act Workers Build Skills, Confidence amid Recession

RICHLAND, Wash. – In the two years since receiving \$1.6 billion in Recovery Act funds, the Richland Operations Office has hired thousands of workers during a period of economic recession, providing an unprecedented opportunity to master marketable skills that will give them an advantage at future employment opportunities.

“The Recovery Act funding gave me the chance to train in a new job and I am learning something every day. At Hanford, no matter what your position is, you gain exposure to so many different fields — cleanup, construction, demolition.” Tracy Holt said.

Holt is one of 8,042 workers who have benefited from the Richland Operations Office’s Recovery Act funds at the Hanford Site since the start of Recovery Act work in 2009. She works in administrative clerical support with Babcock Services, Inc., a subcontractor to CH2M HILL Plateau Remediation Company (CH2M HILL), the DOE contractor for environmental cleanup at Hanford’s Central Plateau.

Cleanup Creates New, Exciting Experiences for Recovery Act Workers

“The company and the people at Richland Operations Office were willing to take the time to teach me, and now my skills are making a difference in a way I never expected,” Holt said.



Top: A nuclear chemical operator is observed in training for repackaging waste.

Bottom Left: A team of crane operators is trained in the use of heavy equipment used to demolish structures at the Hanford Site.

Bottom Right: Workers train for decommissioning and demolition operations at the Hanford Site.

Holt was working in retail management and ready for a career change when she was hired by CH2M HILL in July 2010.

“I had gone back to school and finished my degree and I was ready to change careers. I knew this was a job with an end date, but I could gain experience in something new and when it was over, I would have new training and skills to take with me,” Holt said.

Recovery Act Work Produces Top-Notch Skills

Red McKennon, CH2M HILL director of training and procedures, said compe-

tence, confidence, and pride are three traits Recovery Act workers have developed.

“Workers came to this project, and some of them were new to Hanford and some were new to our scope of work. Through training and experience, they developed into disciplined, experienced, safety-oriented and environmentally conscious members of a team working on a national priority: the environmental cleanup of the Hanford Site,” McKennon said.

Accelerating cleanup of waste generated from decades of plutonium produc-

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tion is a complex task that takes a mix of trades, including nuclear chemical operators, decommissioning and deactivation workers, radiological technicians, field work supervisors, industrial hygienists, and construction craft workers.

Workers Learn Stringent Safety Requirements

CH2M HILL established training for each type of field worker, combining mandatory occupational safety and Hanford Site subjects, including a “Do Work Safely” module specially designed to introduce Recovery Act hires to Hanford’s safety program, expectations and requirements. Additional job-specific training was conducted as Recovery Act hires were integrated with their assigned projects.

“The training provides workers practical knowledge and application of DOE Office of Environmental Management safety expectations and conduct of safe operations. Workers are armed with an in-depth understanding of what safety means. That is something that will stay with them — whether on other jobs or at home,” McKennon said.

As Recovery Act work winds down in September 2011, significant cleanup projects and opportunities for professional growth will continue as CH2M HILL continues accelerated cleanup across the 586-square-mile Hanford Site. The well-trained, experienced Recovery Act workers will continue to be in demand in the competition for current and future employment opportunities at the Hanford site. □



A drilling crew from Cascade Drilling works at a well site at the Hanford Site.

Small Business Owner is Grateful for Opportunity from Recovery Act

RICHLAND, Wash. – Bruce Niermeyer, chief executive officer of Cascade Drilling, L.P., knows a thing or two about drilling wells — he has been at it for 40 years.

A small business owner, Niermeyer knows his employees personally and understands the impact maintaining business has on their livelihoods.

Thanks to approximately \$3.5 million in funding from the Recovery Act, Cascade’s crews are busy at the Hanford Site. Cascade’s funding is part of the \$1.6 billion the Richland Operations Office received from the Recovery Act.

“We’ve been on site for four years and being part of this Recovery Act work has made a big difference. This work has benefited several of my workers who would have otherwise had no job or a reduced job. It also reminds us why we need to keep doing a great job out here and stay competitive on the site by investing in new equipment and keeping up to date on safety regulations,” Niermeyer said.



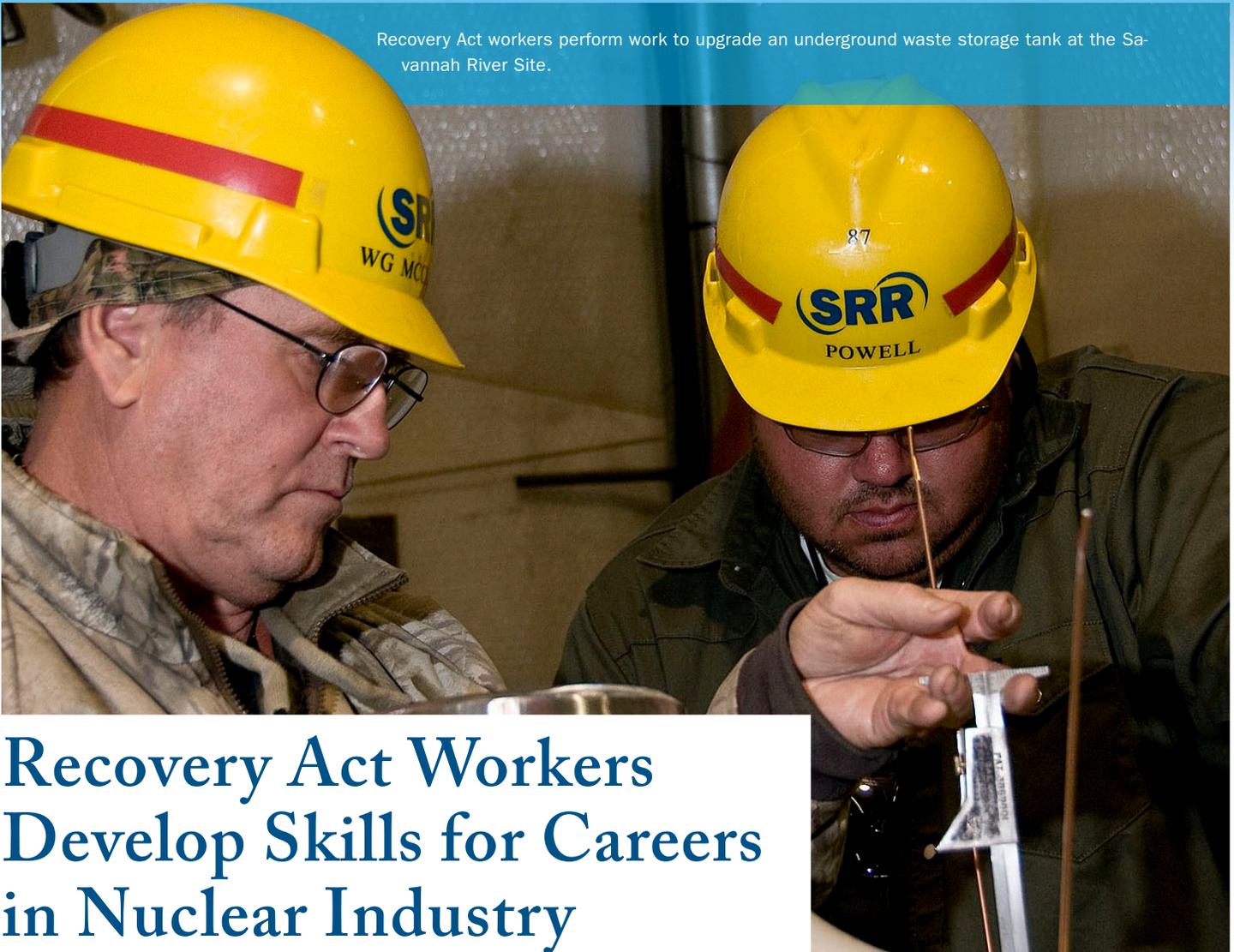
Bruce Niermeyer, chief executive officer, Cascade Drilling, L.P.

Niermeyer is grateful for the opportunity the Recovery Act has given his business to maintain operations at Hanford while expanding Cascade’s resources and work portfolio.

“I know all these workers,” Niermeyer said. “They’ve worked for me for 10 to 20 years. It’s one of the advantages of being a small business. Each employee is not just a number or headcount — each employee is somebody I know.”

Washington-based Cascade is a subcontractor to CH2M HILL Plateau Remediation Company, the DOE contractor for environmental cleanup of Hanford’s Central Plateau. Cascade and CH2M HILL’s other subcontractor drilling crews have installed nearly 300 wells since April 2009 to help expand and enhance treatment of contaminated groundwater at Hanford. □

Recovery Act workers perform work to upgrade an underground waste storage tank at the Savannah River Site.



Recovery Act Workers Develop Skills for Careers in Nuclear Industry

AIKEN, S.C. – Empowered with new skills gained in the radioactive liquid waste cleanup at the Savannah River Site (SRS), more than 1,800 workers could find new work opportunities in nuclear plant construction in South Carolina and Georgia after Recovery Act projects.

The Recovery Act workers are employed by Savannah River Remediation, LLC (SRR), which received \$200 million from the Recovery Act to accelerate closure of 49 underground liquid waste storage tanks and high-level nuclear waste processing. SRR's funding is part of \$1.6 billion SRS received from the Recovery Act.

A recent survey suggested more than 10,000 workers will be needed in the

nuclear industry in the next ten years in South Carolina and Georgia. Relying on their SRR work experience, Recovery Act workers may benefit from that growth.

Two multi-billion dollar projects are under way at SRS: the Mixed Oxide Fuel Fabrication Facility and the Salt Waste Processing Facility. In addition, new Plant Vogtle nuclear plant construction is under way at the Georgia Power Company facilities outside Waynesboro, Georgia.

In addition to learning skills needed for the construction and operation of nuclear facilities, Recovery Act workers at SRR learned the rigors of safe work processes prior to performing work at SRS. In turn, SRR Recovery Act workers have

worked more than one million hours without an occupational injury case that involved days away from work, work restrictions, or the need for a job transfer.

SRR Recovery Act Project Program Manager Mark Schmitz attributed the safety achievement to SRR's process of assigning new Recovery Act personnel to work with experienced SRR workers familiar with stringent safety requirements and work conditions.

"Our safety success results from providing Recovery Act workers with comprehensive safety training before they begin their work assignments," Schmitz said.

□



New hires train to become certified health physics technicians, who help keep coworkers safe from radiological contamination. Recovery Act funding at Hanford's tank farms helped create nearly 600 jobs at the peak of employment last fall.



Recovery Act Bolsters Workforce of the Future, Safety at ORP

RICHLAND, Wash. – The Office of River Protection (ORP) is helping EM meet a major goal of the Recovery Act by providing jobs for hundreds of individuals from a variety of backgrounds.

ORP and prime subcontractor, Washington River Protection Solutions (WRPS), have taken a long-term approach to job creation, hiring employees to fill immediate needs of the Hanford tank farms project while preparing workers for jobs available after Recovery Act-funded work is complete.

“We measure our mission in decades,” ORP Tank Farms Project Acting Assistant Manager Tom Fletcher said. “The Recovery Act really allowed us to build the workforce we’ll need to carry us into the next phase of cleanup.”

Through December 2010, ORP employed Recovery Act workers in 430 full-time positions. About 260 of those employees were hired by WRPS, and they are expected to transition into other ORP projects once Recovery Act work is complete.

“We saw the Recovery Act as a way to invest in our workforce,” WRPS Recovery Act Program Manager Karen Vacca said. “We’re training the next generation of Hanford workers. The Recovery Act money has enabled us to hire new employees, replace those who are retiring over the next few years, and help fill the void those people would have left.”

Recovery Act work at Hanford’s tank farms is 78 percent complete, with ORP spending \$246 million of its allocated funds through March. ORP is on track to spend the remaining Recovery Act funds by the end of September 2011.

Recovery Act funds are being used at Hanford’s tank farms to upgrade operating facilities, systems and equipment needed to successfully complete the long-term mission of tank waste retrieval and delivery.

The projects funded by the Recovery Act also are creating a safer, more efficient work environment. Through March 2011, tank farm employees logged more than 1 million hours on Recovery Act-funded projects without an injury that required an employee to miss work.

“This is a significant accomplishment for our team, especially in light of the type of work we perform, the efficiency level we have attained, and the fact that a vast majority of the work scope was accelerated by our workforce.” WRPS Acting Chief Operating Officer Ken Rueter said. “Recovery Act work is a single, integrated, team effort between WRPS and ORP and we have all been equal players in reaching this significant target.” □

“ The training and experience I have received here at SRS have made me marketable for future job opportunities. ”

Kole Helvie, SRS operations specialist



A Recovery Act worker handles a drum containing legacy transuranic waste at the Savannah River Site.

Training is Key to Success for Recovery Act Workers at Savannah River Site

AIKEN, S.C. – More than 3,900 Recovery Act workers in the accelerated cleanup at the Savannah River Site (SRS) have learned skills that make them more marketable in the nation’s competitive job market.

“The training Recovery Act workers received at SRS benefits the individual employee and the nuclear industry,” DOE-Savannah River Manager Dr. David Moody said. “Many of our employees never had training like they received at SRS. It was life-changing for them, and that training will stay with them for a long time.”

Recovery Act workers continue to acquire skills that range from generating spreadsheets to working safely in radiological areas. As SRS’s \$1.6 billion Recovery Act Program largely comes to a close in September 2011, those skills are helping some workers obtain permanent positions at SRS.

Bill Picciano began Recovery Act work in June 2009 as a logistics expeditor. In that position, he became adept at resolving issues that couldn’t be fixed by coworkers. That experience and on-the-job training in site clearance permits and safety courses such as

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Bill Picciano

Assisted Hazardous Analysis helped Picciano land a permanent position. In June 2010, he became an associate engineer technical support specialist for Savannah River Nuclear Solutions (SRNS), the management and operating contractor at SRS.

“What I brought to my first site job and what I learned from the Recovery Act helped me obtain this position at SRNS,” Picciano said.

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Recovery Act workers completed many training courses. For example, Kole Helvie, an operations specialist, took more than 150 courses on topics such as emergency drills and work observation. Some of his instructors had more than 20 years experience teaching the courses.

“The training has been very thorough and comprehensive,” Helvie said. “When I first came to SRS, I had no experience in the nuclear industry. I now have an understanding of radiological hazards and controls, and almost two years experience in operations,” he said. “The training and experience I have received here at SRS have made me marketable for future job opportunities.”

Gordon Quillin, SRNS director for radia-

ards, developing and implementing hazard controls, performing the work within those controls, and providing feedback for continued improvement.

“By following the ISMS, Recovery Act employees will leave here and apply the method at home and at other sites,” Quillin said. “I think the workers we have brought in for the Recovery Act Program share a common vision about what is normal and what is abnormal when it comes to safety. They work as a team.”

Recovery Act workers also picked up many new skills — such as computer software applications — outside of their typical job duties.

“Much of the learning on the job will be hard to quantify, but the Recovery Act has certainly increased the marketability of these workers,” said Lee Fox, deputy director of SRNS’s Solid Waste Management division. “Skills such as inventory control and labeling and shipping a product are employed at businesses all over the country.”

Paul Hunt, vice president of the Recovery Act portfolio for SRNS, said training is one of the understated benefits of the Recovery Act.

“Training is the backbone of this project as enormous closure projects are being performed in a safe and technically sound manner,” Hunt said. □

tion protection, said Recovery Act workers learned about SRS’s strong emphasis on safety during their initial training.

“Safety can be incorporated in all aspects of their job,” Quillin said. “SRS has a right to be proud of its focus on safety.”

DOE’s Integrated Safety Management System (ISMS), a five-step method for performing work safely, calls for defining the work, identifying and analyzing haz-



Workers install fabric inside the Accelerated Retrieval Project IV retrieval enclosure. Retrieval enclosures are designed to withstand sunlight, snow and wind and maintain a negative pressure inside.

Waste is exhumed in the Accelerated Retrieval Project IV retrieval enclosure recently.

Idaho Site Completes Buried Waste Project a Year Ahead of Schedule

IDAHO FALLS, Idaho – Using \$26 million from the Recovery Act, workers at the Idaho site recently finished a buried waste retrieval effort more than a year ahead of schedule. The work was completed with no recordable occupational injuries or illnesses.

Recovery Act workers exhumed 16,783 cubic yards of waste from the Accelerated Retrieval Project (ARP) IV, which is enough to fill more than five Olympic swimming pools.

The work at ARP IV began in January 2010, following three previous accelerated retrieval projects. At just under four-fifths (0.79) of an acre in size, ARP IV was larger than each of the first three retrieval projects.

The ARP waste originated at the Rocky Flats Environmental Technology Site in Colorado in the 1960s. It consists of plutonium-contaminated filters, graphite molds, solidified radioactively and organically contaminated sludge, and oxidized uranium material.

“Lessons learned from ARPs I, II and III carried over to ARP IV. It has been a much smoother operation,” said Joe Velasquez, a retrieval specialist with CH2M-WG Idaho, the Idaho site’s cleanup contractor. The workers build momentum as they proceed from one ARP site to the next at the 97-acre Subsurface Disposal Area, increasing efficiencies to retrieve waste more rapidly.

Targeted waste is repackaged into 55-gallon drums. Some of that waste is transuranic waste, which is shipped to DOE’s Waste Isolation Pilot Plant in New Mexico for safe, permanent disposal. Other classes of radioactive waste are sent to other facilities for disposal.

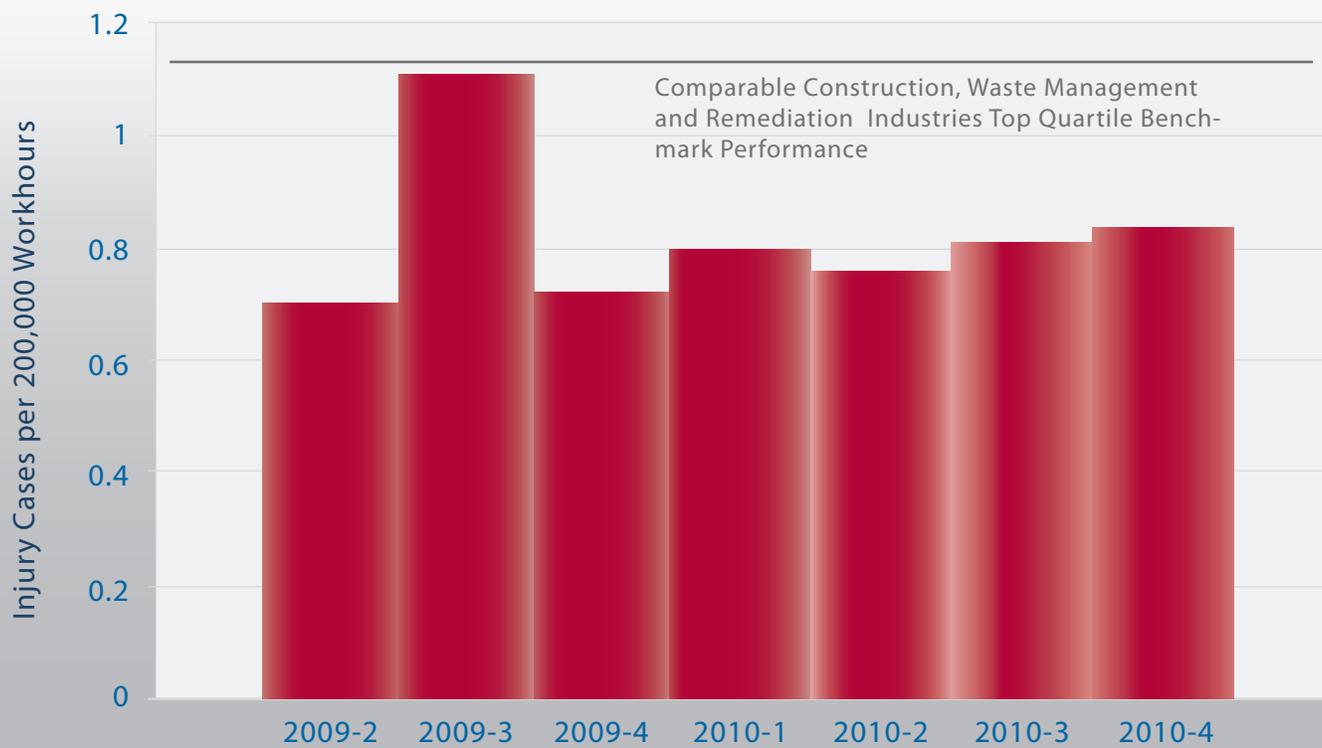
A work-related injury or illness must be recorded if it results in medical treatment beyond first aid, days away from work, restricted work or transfer to another job, loss of consciousness, death, or a significant injury or illness diagnosed by a physician or other licensed health care professional. □

Correction

In its March 2011 issue, EM Recovery News incorrectly identified Hayward Baker, Inc. as a small business in its article titled “Idaho Site Awards over \$46 Million in Recovery Act funds to Small Businesses.” Although Hayward Baker is supporting Recovery Act work at the Idaho Site, its subcontract is not applicable to the Recovery Act small business awards of \$46 million.



DOE Office of Environmental Management Injury Rates by Calendar Year Quarter for Recovery Act Work



Recovery Act Funds New Transuranic Waste Transportation Packages

CARLSBAD, N.M. – This summer, the Waste Isolation Pilot Plant (WIPP) is scheduled to begin receiving contact-handled transuranic waste in new transportation packages funded by the Recovery Act.

Known as TRUPACT-III, the packages will be used by the Savannah River Site in South Carolina for shipping large waste containers that don't fit in existing transportation packages, called TRUPACT-II. The U.S. Nuclear Regulatory Commission certified the new packages for use at WIPP.

The Carlsbad Field Office (CBFO) presented a TRUPACT-III test unit to the public during a two-week road show

across America in February. About 800 people attended the shows and asked questions about the shipping packages and the process for shipping transuranic waste to WIPP. The shows were held in communities along Interstate 20, a route used for WIPP shipments, in Texas, Mississippi, Louisiana, Alabama, Georgia, and South Carolina. Attendees included emergency response professionals trained to respond safely and effectively in the event of an accident involving the shipments.

“The road show is a very important part of the WIPP transportation system,” CBFO Institutional Affairs Manager Bill Mackie said. “It is essential to take the time to familiarize individuals along the

route with each transportation package we use at WIPP. The road show gives them an opportunity to have any questions or concerns answered by WIPP personnel.”

A byproduct of the nation's nuclear defense program, transuranic waste is safely and permanently disposed in rooms mined out of an ancient salt formation more than 2,100 feet below the surface at WIPP. □

In Recovery Act Cleanup of WWII Waste Site, Safety Means Preparing for the Unexpected



Above: The excavation of Material Disposal Area B is occurring inside large metal enclosures. The proximity of local businesses spurred extra safety precautions.

Right: To ensure safety, workers wear full personal protective equipment inside the enclosures.



LOS ALAMOS, N.M. – When Los Alamos National Laboratory used Material Disposal Area B (MDA-B) in the 1940s, it was located on the outskirts of the city. Several businesses are now located across the street from this World War II-era waste dump, making safety an essential part of the cleanup being funded by \$108 million from the Recovery Act.

“Safety precautions would be necessary even if MDA-B was in a remote location. But the proximity of the businesses to MDA-B made us take even more stringent safety precautions,” said Gordon Dover, Recovery Act projects director at the Lab. “We have several layers of measures designed to protect our workers, the businesses across the street, and the community.”

To help ensure safety, the excavation of the Lab’s oldest waste disposal site is occurring within large metal structures that resemble airplane hangars. These sturdy metal enclosures are equipped with fire suppression systems and high efficiency particulate air monitoring,

which filters more than 99 percent of contaminants from the air. Another air monitoring system outside the structures measures air quality.

Included with the excavation equipment is a sensitive radiation sensor that alerts workers if contamination is detected. In addition, all workers wear protective clothing and breathe air supplied by respirators while working inside the structures.

MDA-B was used more than 60 years ago. Because few records exist from that time, a challenge the project team faced was preparing for the unexpected.

“We pulled 87 core samples from all over the site prior to excavation and talked with people who worked at the Lab in the late 1940s, so we had a better idea what we might unearth,” said MDA-B Project Manager Al Chaloupka. “But with a project like this, you have to always prepare for the unexpected.”

According to local lore, big-ticket items buried at MDA-B range from a nuclear

reactor to a World War II tank to a contaminated truck used during the testing of the first atomic weapon in southern New Mexico.

None of those items has been found in MDA-B. But other contaminated items, such as a piece of pipe that contained a high level of radioactivity, have been dug up as part of the excavation. In February, several glass jars containing gray metal were uncovered. When tested, the contents of the jars proved to be beryllium, a potentially toxic metal used to support weapons program experiments. Because workers monitoring the excavation were well-trained, they ensured safety by following procedure and halted excavation so the substance could be tested.

“Because safety is our first priority, we tried to plan for every contingency by using layers of safeguards,” Dover said.

Excavation of MDA-B is scheduled for completion this summer. □



Explosive Demolition Video Sets Record on Hanford's YouTube Site

RICHLAND, Wash. – Recent explosive demolitions at the Hanford Site were a smash hit — a smash YouTube hit, that is.

A video of the demolitions that changed Hanford's skyline was the most-viewed entry on the Richland Operation Office's YouTube site, drawing a record-setting 1,000-plus views in just one day and over 14,000 in the first week it was posted. The video — not just the demolitions — even drew the attention of news outlets such as *The Seattle Times* and *KING 5 News*, a television news station in Seattle.

“We want to show people everything we're doing to clean up the Hanford Site — from the groundwater up and, in this case, back down again. We also want to make it engaging and understandable for viewers so they can see the difference Recovery Act funds are making in environmental cleanup,” said Grant Monrean, videographer for Hanford Site contractor CH2M HILL Plateau Remediation Company (CH2M HILL). “We get video footage of our projects every week as part of our commitment to maintain-

ing transparency about the work we are doing with the Recovery Act funds.”

The YouTube sensation focuses on the Feb. 18 demolitions of industrial structures that supported plutonium processing for national defense. The explosive demolitions took down two 250-foot-tall exhaust chimneys, two 90-foot-tall air filter structures, and a 140-foot-tall water tower marked by a “Work Safely” motto that greeted workers. The work was funded by a portion of the \$1.6 billion the Richland Operations Office received from the Recovery Act.

The clip, available at www.youtube.com/hanfordsite, shows demolition from 10 different angles, with cameras placed so close they shake during detonation and are pummeled with debris. All of the cameras survived for reuse, thanks to protective casing.

Since launching the weekly progress videos in 2009, the video crew has filmed three explosive demolitions. Videographers also captured activities in other high-hazard, contaminated environments, filming sampling of a reactor core and operations inside Hanford's Plutonium Finishing Plant.

“We are watching workers make history. Most people, even people working at the Hanford Site, do not get to see these places due to safety and security. But it is all an important part of our country's legacy. And now, thanks to Recovery Act funds, workers are out there engaged in another unprecedented effort as they clean up the waste and we want to share that story,” Monrean said.

Regular video footage is one of several ways DOE Hanford contractors are communicating how Recovery Act funds are accelerating cleanup at Hanford. For more video, photos and weekly reports, visit www.hanford.gov/recovery. □

Left: A camera is placed inside a protective case to keep it safe while capturing images of Hanford Site demolitions.

Middle: Grant Monrean, videographer for Hanford Site contractor CH2M HILL Plateau Remediation Company, prepares to film a demolition at Hanford.

Right: A camera is positioned to capture the demolition of the water tower marked by a “Work Safely” motto that greeted workers.

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