



AMERICAN RECOVERY & REINVESTMENT ACT NEWSLETTER

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Recovery Act Spending by the Office of Environmental Management Tops \$1.3 Billion

On March 1, the Office of Environmental Management crossed the \$1.3 billion mark in American Recovery and Reinvestment Act (Recovery Act) funds spent to create jobs and accelerate the cleanup of nuclear waste at sites around the country.

Financial Progress and Accountability

Site	Spend Plan	Obligated to Contracts	Spent to Date
Argonne National Lab.	\$98,500,000	\$79,000,000	\$10,451,619
Brookhaven National Lab.	\$42,355,000	\$42,355,000	\$21,521,862
ETEC	\$54,175,000	\$54,162,338	\$1,541,093
Hanford (Office of River Protection)	\$326,035,000	\$326,035,000	\$51,780,054
Hanford (Richland)	\$1,634,500,000	\$1,513,489,000	\$315,372,720
Idaho	\$467,875,000	\$467,875,000	\$134,236,025
Los Alamos National Lab.	\$211,775,000	\$211,775,000	\$33,925,689
Moab	\$108,350,000	\$108,350,000	\$22,477,861
Mound	\$19,700,000	\$19,700,000	\$4,404,952
Nevada Test Site	\$44,325,000	\$44,325,000	\$15,988,764
Oak Ridge	\$755,110,000	\$506,919,873	\$121,722,432
Paducah	\$78,800,000	\$78,800,000	\$13,511,479
Portsmouth	\$118,200,000	\$118,200,000	\$19,953,106
Savannah River	\$1,615,400,000	\$1,589,269,612	\$444,497,944
SLAC	\$7,925,000	\$7,925,000	\$4,349,426
SPRU	\$51,775,000	\$51,775,000	\$7,995,400
WIPP	\$172,375,000	\$170,261,957	\$39,275,908
West Valley	\$73,875,000	\$73,875,000	\$17,328,749
Title X Uranium/Thorium Reimbursements	\$68,950,000	\$46,024,344	\$45,624,344
Management & Oversight	\$30,000,000	\$15,116,948	\$7,520,450
Unallocated	\$20,000,000	\$0	\$0
Total	\$6,000,000,000	\$5,525,234,072	\$1,333,479,877

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Message from Crystal Williams: Recovery Act Communications Team



Crystal Williams

Coming from Cumberland City, a rural town in Tennessee (population 316), relocating to Washington D.C. was quite a transition. In 2006, I graduated from Austin Peay State University with a degree focusing on Political Science and International Affairs. With my interests focused on International Public Policy, I felt that Washington was the place to begin a career. Lessons learned from a textbook can't compare to being directly involved in the evolution of legislation and seeing firsthand the impact it has on the public.

I joined the Department of Energy in 2007 as an Intern within the Agency's Career Development Program. My first assignment was in the Office of Civilian Radioactive Waste Management (OCRWM) as a Budget Analyst. I then completed a rotational assignment working on hearing preparation and Congressional correspondence for the Director of OCRWM.

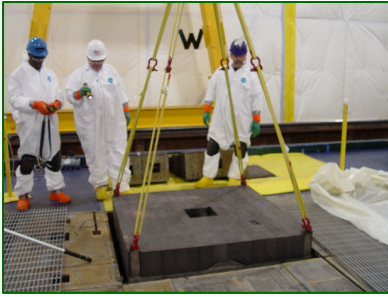
In August 2009, I began working in EM's Recovery Act Program as a Recovery Act Communications Liaison. Some of my key projects include the Recovery Act Newsletter, Lessons Learned, News Flashes, standing up a new website, creating website videos, managing the EM Portal and working with the DOE

Communications Team. I wanted to be involved in a program that was making an immediate impact and difference in the lives of Americans, and I found that in the Recovery Act Program. I have personally seen a direct correlation between the influx of stimulus money, the acceleration of economic growth and the fostering of domestic jobs.

The EM program has organized a very dynamic, goal-oriented Recovery Act team. It is dedicated to maintaining an open dialogue with EM stakeholders, public interest groups, regulators, Congress, Tribal Nations, field sites and media with the goal of expanding and maintaining the public's trust and confidence. EM continues to effectively communicate with the public on progress through the Newsletter, weekly News Flashes, press releases and information exchanges. Electronic media outlets include our website (<http://www.em.doe.gov/emrecovery>), posting videos from the field, and our Web presence - including YouTube. We have a genuine interest in tracking Recovery Act dollars, jobs created, ensuring the work is getting done and that people across America benefit from the investment the government is making.

The difference this program is making in the lives of working families across the nation is what makes my job fulfilling. I am excited to have the opportunity to be a part of a monumental initiative and I look forward to a long career in public service.

Reactor Removal Starts at Brookhaven National Laboratory



Roof shielding plugs being removed at the Brookhaven Graphite Research Reactor.

Using Recovery Act funding, DOE and Brookhaven Science Associates (a contractor supporting Brookhaven National Labs) are accelerating the removal of the graphite pile from the Brookhaven Graphite Research Reactor (BGRR) at Brookhaven National Laboratory (BNL) in New York state.

The BGRR was the world's first reactor built solely to perform scientific research on peaceful uses of the atom. It was an air-cooled, graphite-moderated reactor that operated from 1950 to 1968 and served as a valuable research facility. In 1968, DOE decided to close the reactor as it no longer provided the high neutron flux preferred by researchers—something that was available at the then-new High Flux Beam Reactor at BNL.

The core of the BGRR is a graphite cube (pile) -- 25 feet on each side and weighing 700 tons. The graphite pile consists of approximately 60,000 blocks and is surrounded by a five-foot thick concrete shield designed to protect operators from radiation exposure.

In 2005, DOE, the Environmental Protection Agency, and the New York State Department of Environmental Conservation agreed on a final cleanup action plan for the BGRR, and finalized the Record of Decision. This agreement requires the removal of the graphite pile, biological shield, fuel canal structure and reasonably accessible contaminated soils. It also calls for the installation of a water infiltration control and monitoring system.

To facilitate the removal of the graphite, a manipulator that can be operated by remote control was installed on top of the shield wall. The BGRR control rods boron shot canisters that were used for emergency shutdowns and roof shielding plugs were also removed. The graphite removal began on February 4 and is expected to be complete by April 2010.

As blocks are removed from the pile, they are loaded into soft-sided containers called “super sacks.” They are then placed inside metal containers for shipment to DOE's Nevada Test Site for disposal. All graphite handling takes place inside a contamination control enclosure that will be maintained at a slight negative pressure (with respect to the atmosphere) in order to eliminate release of radioactive material to the environment.

Recovery Act Funds Help Take Down Hazardous Structure at Oak Ridge National Laboratory

More than sixty years after it was built as part of World War II's Manhattan Project, Building 3026 at Oak Ridge National Laboratory (ORNL) in Tennessee had turned into an unused, unsightly relic that posed potential hazards to the entire Laboratory.

When it was operational, the wooden structure assisted with work related to the Graphite Reactor at Oak Ridge. Even though it had not been used in 20 years, the building still housed hot cell facilities where radiological materials were once processed. If a fire or structural failure occurred, those cells could



Pre-demolition activity taking place last year at Oak Ridge National Laboratory's Building 3026.

disperse radioactive or hazardous material contamination across the ORNL site, presenting a possible hazard to thousands of workers.

Building 3026 was put on a priority list of facilities destined for demolition. However, the teardown was placed on a fast track when \$12.4 million in funding was made available through the Recovery Act.

Clauss Construction, a service-disabled veteran-owned business firm from Lakeside, Calif., won the \$2.23 million contract award to remove asbestos and lead-contaminated debris and demolish the wooden exterior of the building. Preparation work began in spring 2009. By late December, mechanical claws had ripped apart the metal and wooden superstructure and the building was “on the ground,” completing the first phase of the project.



Phase One demolition work on Building 3026 being completed in December 2009. It left only the concrete hot-cell structures standing; they are scheduled to be removed in the next phase of operations.

Clauss has employed an average of 18 people on the site, with a peak of 26. Of that total, Clauss project manager William Musbach said as many 10 of the positions were new, with the balance of workers representing jobs retained or saved.

Today, all that remains of the original facility are the concrete hot-cell structures now coated in a special protective paint. These structures are scheduled to be removed in the next phase of operations. ORNL Environmental Management Program Office’s Dirk Van Hoesen said the teardown of Building 3026 helped jumpstart the Integrated Facilities Disposition Program “that will reduce risk to our staff, the environment and our missions, and ultimately clean up the central campus.”

Tearing down Building 3026 was a challenging task because the site had to be meticulously assessed, characterized and prepared. The work required teams with expertise in demolition involving hazardous materials and radiological contamination. The situation was also complicated because the structure was surrounded by DOE’s largest National Laboratory and literally thousands of researchers and support staff.

Work on Unearthed Boxes of Radioactive Waste Continues at Hanford



Box 82, one of two fiberglass-reinforced wooden boxes of radioactive waste that CH2M HILL is preparing for repackaging and removal from an underground storage trench.

A project to remove several boxes, ranging in size from one to 45 cubic meters, continues to move ahead thanks to funding from the Recovery Act. The boxes contain radioactive waste from storage trenches at DOE’s Hanford Site in Washington state.

They were built and placed in underground storage trenches in the 1970s, and contain laboratory waste and protective clothing that workers wore in nuclear material processing facilities. After nearly four decades in the burial ground, the boxes have started to collapse due to moisture and soil weight. With Recovery Act funding, DOE contractor CH2M HILL Plateau Remediation Company (CH2M HILL) is preparing to remove the boxes and their contents from the

storage trenches – a task that was not expected to have funding beyond March 2009.

“With the help of the Recovery Act funds, we were able to continue retrieval work and keep our experienced workforce that is getting this job done safely and efficiently,” said Rod Gadd, Waste Retrieval Project Engineer for CH2M HILL. “The funding also allowed us to purchase the special tools and equipment we need to safely remove the more damaged boxes.”

CH2M HILL is currently focusing on two badly damaged boxes, referred to as Boxes 80 and 82. Workers wearing personal protective equipment, including respirators, are using long-reach tools to remove the waste and debris and pieces of the box itself. Boxes and contents will be placed in new containers and assayed to determine how much radioactive material is present. Low-level waste will be disposed of at the Environmental Restoration and Disposal Facility on the Hanford Site. Transuranic (TRU) waste will be prepared for shipment to the Waste Isolation Pilot Plant in New Mexico for disposal.

Retrieving TRU waste is part of CH2M HILL’s Recovery Act-funded effort to accelerate removal of hazardous legacy waste and fuels from the Hanford Site. The company has removed 11 boxes and shipped approximately 430 cubic meters of retrieved TRU waste to a treatment, storage or disposal facility, which will receive a total of 2,500 cubic meters of TRU waste.



Waste retrieval in progress. The large boxes were fabricated to cover the deteriorated boxes of waste from adverse weather while the boxes and their contents are prepared for removal from the trench.

Final Shipments of TRU waste from GEVNC to WIPP

On January 29, DOE’s Waste Isolation Pilot Plant (WIPP) received the last shipment of defense-generated remote-handled (RH) TRU waste from the Hitachi General Electric Vallecitos Nuclear Center (GEVNC) in California.

GEVNC is a privately owned commercial energy research facility located 40 miles south of San Francisco, Calif. Research activities conducted at GEVNC for DOE in the 1960s resulted in TRU waste being stored at the facility.



A shipment of RH-TRU waste arrives at the WIPP site.

The shipment was the last in a series of 32 and used just over \$500,000 of Recovery Act funding. The shipments began in mid-September of 2009. A small amount of contact-handled TRU waste still remains at GEVNC and is scheduled to be removed in the middle of this year. This TRU waste will be sent to the Idaho National Laboratory for confirmation and then to WIPP for permanent disposal. Following this final shipment, GEVNC will have shipped all defense-generated TRU waste.

Last Building in “Engineering Row” at Y-12 Torn Down with Recovery Act Funding

Building 9375, the last structure left standing in Engineering Row, at the Y-12 National Security Complex, was torn down on February 8 in a project funded by the Recovery Act. The building, on DOE’s Oak Ridge Reservation, had asbestos, lead and minimal radiological contamination.

“The waste will be disposed of in the coming weeks, and the entire project will be completed four months ahead of schedule,” said Jim Blair, the Babcock & Wilcox Technical Services Y-12 project manager for Recovery Act deactivation and demolition (D&D) projects.



Building 9375 was demolished on February 8. To minimize particulate and dust, workers sprayed the work site with water.

Six other buildings in Engineering Row were razed in 2008. After the building D&D project is complete, the site will be converted into a 21-space parking lot on the east end of Y-12.

Big Top Tent at Savannah River Keeps TRU Waste Trucks Dry



Recovery Act’s Big Top at work.

A jumbo-sized vinyl tent with a metal frame measuring 160 feet long, 24 feet wide and 20 feet high is making it easier for inspectors to check over shipments of transuranic (TRU) waste before they leave DOE’s Savannah River Site (SRS) for a trip to a geologic repository for final disposition. The TRU waste disposition project is currently funded by the Recovery Act and work is being performed by Savannah River Nuclear Solutions (SRNS), the management and operations contractor at SRS.

The Big Top, which is a brand name for the structure, keeps the truck, containers of TRU waste, drivers and inspectors dry during inclement weather. The result is faster, more

efficient inspections and a greater likelihood of a timely delivery to DOE’s Waste Isolation Pilot Plant (WIPP) near Carlsbad, N.M.

“Now we can ship in inclement weather,” remarked Reinhard Friske, the TRU waste shipping manager for SRNS. “Inspections are performed inside the tent. Before, we were all out in the elements.” The Big Top, which was assembled last fall, can accommodate two trucks simultaneously.

Mike Simmons, the DOE federal project director of solid waste for the Recovery Act, said the Big Top was assembled to support the state of South Carolina Department of Health and Environmental Control (SCDHEC) in its inspections of the shipments before they leave the site. “If the smear (swipe survey) is wet, it will shield

alpha and beta activity,” Simmons said. “Additionally, there was a concern that the required shipping labels may not adhere to a wet surface.”

“We agreed to help so there would be no delays in shipping,” Simmons said. “We found putting in a shelter would be the most cost-effective way to get the job done.” The Big Top tent holds loaded trucks that are parked under the tent the night before their scheduled departure, assuring a dry inspection in the morning. Until the installation of the Big Top, inspections were dependent upon good weather or the availability of the other covered storage areas.

Having the Big Top makes it easier for TRU shipments to leave SRS on schedule for trips to WIPP. WIPP’s geologic repository handles all TRU disposals across the country and any glitch in departure times affects the overall receiving schedule at WIPP. “If we miss a shipment, it has a national impact. If we can’t ship on a specific day, the state regulators just wasted a day waiting to inspect a shipment that did not leave,” said Friske.

Starting next summer, the number of weekly shipments will accelerate under the planned TRU waste processing schedule. The Big Top will be an invaluable tool in helping keep TRU shipments on schedule.

West Valley’s Main Plant Process Building Is Prepped for Demolition

Approximately \$74 million in Recovery Act funding is helping prepare the Main Plant Process Building at DOE’s West Valley Demonstration Project in New York state for future demolition. The Main Plant Process Building was used for commercial nuclear fuel reprocessing.

The cleanup work includes the removal of hazardous materials and obsolete utilities.

Last month, three “Cold and Dark” Recovery Act work teams—each with approximately 20 specialized workers—started preparing the five story plant for demolition. They isolated and removed utilities, unnecessary controls and electrical panels and also took out asbestos-containing material from piping and equipment.



A free-standing control panel in the Main Plant Control Room identified for removal.



The partially removed control panel is pictured above. The work was completed in early January 2010.

Small Businesses Help to Accelerate Cleanup at the Idaho Site

DOE's Idaho Site and CH2M-WG Idaho, LLC (CWI), the contractor managing the Idaho Cleanup Project (ICP), both know that small businesses are critical to completing the cleanup mission and to sustaining local and national economies. The CWI Small Business Program, which promotes, develops, and implements aggressive small business and socioeconomic subcontracting goals, continually strives to match knowledgeable and skilled subcontractors with meaningful work throughout the varied and complex scope of the ICP.

Last year, the ICP placed over \$32 million in Recovery Act-funded purchase orders and subcontracts, of that total, approximately \$19 million – or 59 percent – was awarded to small businesses.

CWI has also been working to increase subcontracting opportunities for small businesses. "Additional Recovery Act funding not only allowed our project to accelerate cleanup work, but it increased opportunities for small businesses to apply their niche skill sets and innovative approaches to our cleanup mission," said Natalie Packer, CWI's Small Business Program Manager.

Since the inception of the ICP in 2005, over \$658 million has been awarded in total subcontracting dollars. Of that total, over \$434 million was awarded directly to small businesses. "We're proud of those numbers, as they demonstrate our ongoing commitment to the small business program. And we're equally proud of the small businesses meeting the demands of very complex and fast-paced work," said Packer.

To educate suppliers about upcoming subcontracting opportunities and Recovery Act eligibility requirements, CWI representatives have conducted workshops, appeared at forums and held one-on-one meetings with interested small businesses.

Recovery Act Furthers Tank Waste Mixing and Transfer Research at ORP



A mixing tank at Hanford.

A total of \$9.9 million in funding made available through the Recovery Act is being used at DOE's Hanford Site to further tank waste mixing and transfer research.

DOE's Office of River Protection (ORP) is tasked with managing Hanford's 53 million gallons of highly radioactive waste stored in 177 underground tanks. The waste will eventually be transferred to the Waste Treatment Plant (WTP), which will begin vitrifying the waste once it begins operations in 2019.

The WTP is designed to process batches of homogenous waste, but Hanford's tank waste is a mixture of liquids, heavy sludge and rock-hard solids. For the plant to operate efficiently, solids in the tank waste must be

broken up and stirred into a mud-like slurry. Hanford engineers plan to place two large mixing pumps in the tanks to churn the waste and keep it in the consistency needed to transfer it to the WTP for treatment.

Refining the waste mixing and transfer system will allow the WTP to process waste more quickly and efficiently, accelerate cleanup and reduce the risk of an operational breakdown.

Recovery Act Funds Interim Barrier Construction at Hanford Tank Farm



An artist's rendering shows how an interim barrier will be installed over a Hanford tank farm to prevent moisture from seeping into the soil and pushing contaminants deeper into the soil or to the water table. Moisture collected on the barrier will drain to a nearby lined evaporation basin.

Hanford Tank Operations contractor, Washington River Protection Solutions, will receive nearly \$4.8 million to install an interim barrier over a tank farm. The work, scheduled to begin this spring, is funded with money provided by the Recovery Act.

The interim barrier will be made of asphalt and is designed to prevent rainwater from seeping into the soil and pushing contaminants from leak-prone single-shell tanks down to the water table. Precipitation collected on the barrier will be directed to an evaporation basin just outside the farm. The basin will be lined to prevent it from leaking. It will then be covered with soil and planted with native grasses to drink up the moisture.

The barriers are interim measures authorized by the Tri-Party Agreement, the accord between DOE, the Environmental Protection Agency and the state of Washington that governs the cleanup of the Hanford Site. They will remain in place until a final decision is made on cleaning up the contaminants in the soil around and beneath the tanks.

TESTIMONIAL

Recovery Act Gives Seasoned Manager a New Chance to Use His Skills at Hanford

After 20 years in heavy industrial management, Joe Gill found himself out of a job when the Alcoa plant he managed in Auburn, Wash. shut down in 2009.

“When you’re part of a multi-billion dollar business with so many facets of operation, it’s a shock when that notice comes out, and I know we weren’t the first or the last group to go through it,” Gill said. At the time, Gill had just recruited workers who had come from other layoffs. “My first concern was with my team, finding my guys work when jobs were hard to find. The economy put highly skilled people out of work and it’s hard when so much of the population is unemployed and good people with good skills start losing jobs,” he said.



Joe Gill, First Line Supervisor at the Plutonium Finishing Plant, CH2M HILL Plateau Remediation Company.

As for his own future, Gill hit the job market, ready to make an impression. “I thought ‘I need to get in front of somebody.’ There were a lot of good people going out for a lot of good jobs. I couldn’t wait for it to come to me,” he said.

Gill attended the CH2M HILL job fair in April 2009 where he had to wait in line for seven hours before meeting with hiring managers and securing an interview. The effort paid off when he was offered a position as a first line supervisor leading a decommissioning and demolition crew at the Plutonium Finishing Plant. His new

team includes several Recovery Act new hires whose high level of skills and experience Gill cited as the one upside to the current job market. “You usually don’t find this quality of people available for hire so quickly. The stimulus money allowed Hanford to offer good jobs in bad times and build a quality workforce,” Gill said.

Gill is thankful for the difference the stimulus money has made to the economy and he looks forward to the difference it will make at Hanford. “People are getting jobs and using their money to build the economy. The money is also helping us be responsible for cleaning up this site and I look forward to watching the last brick come off these buildings.”

For more information on EM Recovery Act work, please visit <http://www.em.doe.gov/emrecovery/>, <http://www.recovery.gov/>, and <https://recoveryclearinghouse.energy.gov/>. Feel free to send questions and comments to EMRecoveryActProgram@em.doe.gov. Your feedback is welcome.
