



AMERICAN RECOVERY & REINVESTMENT ACT NEWSLETTER

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Year One: Office of Environmental Management Spends \$1.6 Billion in Recovery Act Funding

As of April 6, 2010, the Office of Environmental Management has exceeded \$1.6 billion in American Recovery and Reinvestment Act funds spent to accelerate the cleanup of nuclear waste at sites around the country. More than 14,400 workers have benefited from Recovery Act funds.

Financial Progress and Accountability

Site	Spend Plan	Obligated to Contracts	Spent to Date
Argonne National Laboratory	\$98,500,000	\$79,000,000	\$15,559,881
Brookhaven National Laboratory	\$42,355,000	\$42,355,000	\$26,615,288
ETEC	\$54,175,000	\$54,162,338	\$3,788,972
Hanford (Office of River Protection)	\$326,035,000	\$325,935,000	\$72,995,377
Hanford (Richland)	\$1,634,500,000	\$1,512,982,060	\$413,876,550
Idaho	\$467,875,000	\$467,875,000	\$149,806,135
Los Alamos National Laboratory	\$211,775,000	\$211,775,000	\$50,088,950
Moab	\$108,350,000	\$108,350,000	\$25,985,084
Mound	\$19,700,000	\$19,700,000	\$6,275,168
Nevada Test Site	\$44,325,000	\$44,325,000	\$20,131,498
Oak Ridge	\$755,110,000	\$536,156,685	\$154,381,058
Paducah	\$78,800,000	\$80,400,000	\$17,909,129
Portsmouth	\$118,200,000	\$119,800,000	\$30,409,832
Savannah River	\$1,615,400,000	\$1,587,920,048	\$513,888,365
SLAC	\$7,925,000	\$7,925,000	\$4,592,445
SPRU	\$51,775,000	\$51,775,000	\$9,740,930
WIPP	\$172,375,000	\$170,553,000	\$51,713,466
West Valley	\$73,875,000	\$73,875,000	\$23,012,867
Title X Uranium/Thorium Reimbursements	\$68,950,000	\$46,024,344	\$45,624,344
Management & Oversight	\$30,000,000	\$15,622,148	\$9,260,897
Unallocated	\$20,000,000	\$0	\$0
Total	\$6,000,000,000	\$5,556,510,623	\$1,645,656,236

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Recovery Act Helps Local Small Businesses Expand Even in Tough Times



The Recovery Act's benefits are being felt far beyond the boundaries of the Paducah Gaseous Diffusion Plant (PGDP) in Kentucky as the funding brings new business to many small local companies.

Rudys Farm Center is located in Kevil, Ky., near the PGDP. It was founded as an agricultural supply dealer but now sells industrial supplies. Within the last year, industrial sales have increased by a third due to Recovery Act-funded DOE projects, said Matt Rudy, Vice President, of Rudys Farm Center

“The Recovery Act has had a major effect on business,” Rudy said. “Other areas of our business have been suffering, but this work has been a blessing. We’re even looking at adding staff.”

At Waggoner Clothing Co., in Paducah, Ky., Recovery Act work has saved jobs.

“Instead of cutting hours or laying people off, we have increased the hours our staff has worked by about 40 percent,” said Karen Waggoner, owner.

At Paducah Rigging, sales of hoisting and rigging equipment to Paducah Remediation Services, LLC., which has received Recovery Act funding for PGDP projects, have increased more than twentyfold in the past year.

“Obviously we appreciate the heck out of the Recovery Act,” said Rick Farley, a salesperson at Paducah Rigging. “You have blessed us beyond belief.”

First Million Tons of Moab Tailings Shipped to Crescent Junction for Disposal

Less than 11 months since beginning rail shipments, DOE has transported its first million tons of uranium mill tailings from Moab, Utah, to a disposal cell constructed near Crescent Junction, Utah, with the help of Recovery Act funding.

“Thanks to Recovery Act funding, DOE was able to reach this milestone in less than a year,” said DOE’s Moab Federal Project Director Donald Metzler, who celebrated this milestone at



Night shift workers at the Moab site with the container holding the one millionth ton of mill tailings loaded on the railcar headed for Crescent Junction, Utah.

the Grand County Council meeting held on March 16. “Consistently shipping maximum trainloads of 136 containers has definitely helped us hit the one-million-ton mark,” added Metzler.

The first trainload for the Moab Uranium Mill Tailings Remedial Action Project shipped on April 20, 2009, and the trainload carrying the millionth ton left Moab on March 3, 2010. Nearly 490,000 tons were shipped using Recovery Act funding starting in June 2009.

One million tons would fill 30 floors of the Willis Tower (formerly Sears Tower) in Chicago. Shipping such a quantity took 317 trainloads that carried a total of 29,180 containers. The mill tailings pile at the Moab site has a total weight of about 16 million tons.

Metal Recycling Minimizes Waste and Cost: Operator’s Skill Removes Structural Steel from Building Debris

Gilbert Pacheco, Jr. is a heavy equipment operator with a delicate touch. Behind the controls of an excavator his skill and expertise are apparent even to an untrained eye.

Working on a Recovery Act project that will demolish 21 buildings at Technical Area 21 at Los Alamos National Laboratory (LANL), Pacheco’s skill and demolition expertise helped pull a lot more structural steel from one building than initial estimates had projected.

“I think he could brush his teeth with that thing,” said his supervisor about Pacheco’s skill operating an excavator.

When demolition began in December 2009 on the 25,000-square-foot former administration building, the project team hoped to remove and recycle about 91 tons of steel.



Gilbert Pacheco

“Recycling metal from a demolition project minimizes the cost of the project and the amount of waste that goes to a landfill,” said Al Chaloupka, LANL’s demolition program director. “We put a lot of effort into getting metal separated from debris and making sure it is not contaminated so it can be recycled.”

Thanks in large part to Pacheco’s skill and effort, by the end of demolition, 106 tons of metal had been removed from the building and marked for recycling -- exceeding the initial estimate by nearly 16 tons.

“The skill of operators like Pacheco and their ability to separate structural steel from debris are directly tied to how much metal we’re able to recycle,” Chaloupka said.

Though many of the buildings at Technical Area 21 have been empty for decades, the team salvages usable materials and equipment whenever possible. For example, it has extracted items like a 1,000-horsepower generator, which later was donated to a non-profit hospital in North Dakota.

“Recycling metal and salvaging usable equipment is a win-win situation,” Chaloupka said. “Overall, it saves money and allows us to fund additional clean-up, but it’s also the right thing to do.”

Transuranic Waste Processing Facility Expands Using Recovery Act Funding

At the Transuranic Waste Processing Facility (TWPC) at the Oak Ridge National Laboratory (ORNL), Recovery Act funds are contributing to the construction of a new multi-purpose building that will allow for continued loading despite weather conditions and will house numerous inventoried items required for waste processing that are now stored in containers at the TWPC. In addition, the facility will reduce transit times for these materials across the site and reduce the need for using forklifts in high-traffic area sites.

“This building represents the long-term benefits of the Recovery Act,” said Randall McIntosh, TWPC Director of Projects. “Since the building will

provide space for future support needs of ORNL waste disposal activities, the payback on Recovery Act funding used for construction will continue well beyond the Recovery Act funding timeframe.”



A total of \$3.5 million in Recovery Act funds are being used to fund construction of the new building and support multiple shift operations at the TWPC.

The construction is on target to deliver both the cost and schedule benefits promised to taxpayers.

WIPP Completes Clean-up of TRU Waste at Nevada Test Site



WIPP employees place contact-handled waste underground for permanent disposal.

In a mutually-beneficial effort with the state, DOE has used \$457,000 in Recovery Act funding to remove all of the remaining contact-handled transuranic waste (TRU) from the Nevada Test Site.

The waste was first shipped to the Idaho National Laboratory (INL) for characterization and confirmation activities, and then shipped to DOE’s Waste Isolation Pilot Plant near Carlsbad, N.M., for final disposition. The last of 25 shipments from INL to WIPP arrived safely on January 28, 2010.

EMCBC Classification Office Available to Support the Complex

With Recovery Act activities now in full swing across the DOE complex, some sites are discovering that they have decades of historical data to review, but are without the resources or expertise needed. As always, caution must be exercised to ensure that classified record collections are properly protected and dispositioned in accordance with EM, DOE, and National Archives guidance. That’s where the Environmental Management Consolidated Business Center’s (EMCBC) Classification Office can help.

The EMCBC Classification Office is located at the Denver Federal Center (DFC) in Colorado. Its primary mission is providing support functions and managing and maintaining classified and litigation records from the former Rocky Flats Environmental Technology Site in Colorado.

The office is housed in Building 55 at the DFC and provides office space for federal and contractor personnel, and records storage, including a vault-type room. The Federal and contractor staff at Building 55 have extensive experience in the following areas:

- Classification/declassification
- Plutonium and uranium chemistry
- Nuclear material metallurgy
- Nuclear weapons production
- Scanning/converting records to digital format
- Data mining and analysis
- Safeguards & security

The Federal staff and contractor PMTech, Inc. work as a team to provide document and data reviews. Last year they completed the review and return of 394 boxes (over 22,300 items) of technical and processing information from the former Mound, Ohio, facility. Materials dating back to the 1940's were reviewed to determine whether they contained sensitive information that could prevent their public release. Overall, the amount of material determined to contain sensitive information equated to less than .7% of the material reviewed.

The EMCBC Classification Office also recently assisted EM's Safety and Security Program by reviewing 66 boxes of material from the Energy Technology Engineering Center (ETEC) at the Santa Susanna Field Office in California. This review was completed so that the EMCBC could respond to a draft Consent Order from the Environmental Protection Agency and the State of California.

Greasing the Skids: PIC Skid Removal Makes it Easier to Access Hanford Tanks

Sixteen pumping, instrument and controls (PIC) skids are being removed from the tank farms at DOE's Hanford site in Washington State. The skids are large platforms that provide power to surrounding pumps and electrical equipment. Getting rid of the old equipment makes it easier for workers to access the tanks during maintenance and retrieval operations and will prevent future excavations from being hampered by piping and wiring above and under the soil.

Hanford's Office of River Protection is responsible for retrieval and treatment of Hanford's 53 million gallons of radioactive tank waste currently stored in 177 underground storage tanks. Contractor Washington River Protection Solutions is responsible for safely managing the waste until it is prepared for disposal.



A PIC skid is removed from a Hanford tank farm.

Recovery Act Funds Move SRS Tank 5 Closer to Closure



SRS workers remove a 50-foot submersible pump from waste Tank 5 during completion of tank operational closure.

One more radioactive liquid waste tank at the Department of Energy's Savannah River Site (SRS) is moving closer to final closure thanks to Recovery Act funding.

Tank 5, a 750-thousand gallon radioactive liquid waste tank in the SRS F Tank Farm, needed to have its internal purge ventilation system refurbished and a 50-foot long submersible mixing pump removed and replaced. The pump was located inside the 750-thousand gallon radioactive liquid waste tank.

The project was handled by Savannah River Remediation LLC, (SRR) DOE's liquid waste contractor at SRS and was partly supported with Recovery Act funds. Planning and preparation commenced in October 2009, while the work itself was completed safely in December 2009 and January 2010 during some of the worst winter weather conditions experienced in South Carolina. The high hazard radioactive work took place outside in containment huts. No radiological or safety issues were encountered during the performance of the project work.

“The accomplishment of this work was possible due to the planning and preparations of a highly-skilled team of nuclear workers,”

explained Ron Boisvert, SRR's project manager for the Tank 5 and 6 operational closure projects. “Recovery Act funding helps in a big way by maintaining and enhancing tank farm infrastructure, and by expediting the tank operational closure process for Tank 5 and the adjacent Tank 6.”

The Tank 5 and 6 final heel removal campaigns are scheduled to occur this year after relocation of the submersible mixing pumps from Tank 5 and other tank system modifications. The heel removal campaign is a significant next step ultimately leading to waste tank operational closure.

Tanks 5 and 6 are two of 51 waste tanks at SRS. Constructed in 1953 and placed in service in 1959, the tanks are among those included in the SRR commitment to operationally close 22 waste tanks in eight years under its contract with DOE.

Small Business Means Big Business at Oak Ridge's Y-12

Elvado, a woman-owned small business with Section 8(a) certification under the Small Business Act, has won a \$177,637 subcontract to handle five cleanup projects at DOE's Y-12 National Security Complex on the Oak Ridge National Laboratory in East Tennessee.

The company, which is based in Knoxville, specializes in consulting and project management services for environmental compliance and cleanup projects.

Working with Y-12's environmental compliance staff, Elvado helps prepare the required documents for waste disposal at the Environmental Management Waste Management Facility at Oak Ridge. Terry Cothron, Y-12's

environmental compliance coordinator for Recovery Act projects credited Elvado with putting in “extra effort to accommodate aggressively scheduled, fast moving, and frequently changing project work.”

On the Y-12 Recovery Act projects, nearly 84 percent of the \$50 million in contracts awarded have gone to small businesses like Elvado.

North Plateau Groundwater Plume Mitigation



Recovery Act funding is supporting work at DOE’s site in West Valley, New York, on a permeable treatment wall that will be used to keep a groundwater plume containing Strontium-90 from expanding.

In February, a drilling team completed 34 core borings along an 850 to 900-foot line where the wall will be installed later this year.

The project involves installing 2,000 tons of zeolite - an absorptive mineral - that will form the permeable treatment wall at depths from 11 to 25 feet.

Demolition of 21-Acre Cooling Tower Complex Underway at Portsmouth

Recovery Act-funded work is well underway to dismantle the 21-acre X-633 Cooling Tower Complex on the northeastern portion of the DOE’s Portsmouth Gaseous Diffusion Plant in Piketon, Ohio.

The complex includes a re-circulating water pump house with a below-grade sump pump and four separate cooling towers containing 58 discrete cells and associated basins. Most of the complex was built in 1955 and operated until 2008. It was de-leased from the United States Enrichment Corporation and returned to DOE in 2009.



An aerial view of the X-633 Cooling Tower Complex at the Portsmouth Gaseous Diffusion Plant.



Workers remove asbestos exterior side panels from the cooling towers.

The cooling towers were designed to remove the heat of compression, through evaporative cooling, from the uranium enrichment process. Plant production ended in 2001. Asbestos abatement is complete in the pump house and more than 75 percent of the exterior panels have been removed from the cooling towers. Work on pumping water from the basins and removing equipment continues.

The X-633 cooling tower project is one of five funded under the Recovery Act at the site. Demolition is scheduled for completion by January 2011, but contractor LATA/Parallax Portsmouth is working to finish the project several months ahead of schedule.

Waste Shipments from Hanford to New Mexico Have Resumed



The Hanford Site has resumed shipments of transuranic waste from the Hanford Site to WIPP. Shipments were placed on hold in fall 2008 and have resumed thanks to Recovery Act funding at Hanford and WIPP.

Because of Recovery Act funding, DOE has been able to resume shipments of radioactive waste from the Hanford Site in southeast Washington State to the national repository for transuranic waste, the Waste Isolation Pilot Plant (WIPP), near Carlsbad, N.M.

The initial twice-weekly shipments will increase to five per week in April, then seven shipments this fall.

“Thanks to Recovery Act funding, our contractor has been able to hire dozens of new Hanford Site employees to resume this important cleanup activity years earlier than planned,” said Dave Brockman, Manager of the DOE Richland Operations Office. “Recovery Act funding is helping our cleanup work stay on track at the Hanford Site.”

The new workers include nuclear chemical operators, radiological control technicians, operations specialists, maintenance personnel, supervisors, and a variety of additional support personnel. Additional work shifts and three repackaging lines were added to the one line currently in operation at T Plant, and a repackaging line will be reactivated at the Waste Receiving and Processing Plant (WRAP) this summer.

Shipments from Hanford to WIPP began in 2000 and the Hanford Site was sending about two shipments per week to WIPP in the summer of 2008. It had completed 432 shipments when DOE suspended shipments to shift available funding to higher priority cleanup projects near the Columbia River that runs through the site.

TRU waste often consists of contaminated trash and equipment resulting from the production of nuclear materials, including plutonium. The waste contains radioactive material with half-lives greater than 20 years. At Hanford, TRU waste was generated at several facilities associated with nuclear materials production.

Approximately \$30 million of Recovery Act funding has been designated to support resuming TRU shipments from the Hanford Site. CH2M HILL has hired and trained more than 60 new employees to support the project, including repackaging activities at two facilities, T Plant and WRAP.



An additional shift and three repacking lines were added at T Plant at the Hanford Site to support the resumption of shipments from Hanford to the Waste Isolation Pilot Plant.

DOE also provided Recovery Act funding to its Carlsbad Field Office to increase the number of trucks available for shipping and hire additional personnel to help with shipments.

Testimonial

Experience and expertise made Anthony “Tony” Shih, Structural Engineer, a valuable new hire to Savannah River Remediation’s (SRR) Recovery Act project.

With a thorough working knowledge of Savannah River Site (SRS) liquid waste facilities and particularly the Defense Waste Processing Facility gained through more than 17 years of employment at SRS, Shih believed his past work, knowledge of the facilities and association with site staff would be of value to the SRR Recovery Act project. Moreover, because of his past SRS experience, he has encountered little in the way of a learning curve, which has helped to expedite the work he is assigned.



Tony Shih

His initial work has focused on support for the Saltstone Production Facility (SPF). The construction and installation of two large tanks at SPF – also a Recovery Act project – will require the design, procurement and installation of a tank enclosure, foundation and protective canopy. Shih’s work will help to determine the feasibility of using pre-stressed concrete panels in lieu of steel platforms and roof structures surrounding the large tanks.

Trained at Brooklyn Technology Institute in New York, Shih sees his new role as an opportunity to add value to liquid waste programs at SRS and support the Site’s environmental management mission.

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 welcomed.
