U.S. Department of Energy | Office of Environmental Management

EM Recovery News

American Recovery & Reinvestment Act Newsletter

July 2011 | Issue 26

Savannah River Site Contributes to All Seven Goals in EM's Journey to Excellence

AIKEN, S.C. – American Recovery and Reinvestment Act work at the Savannah River Site (SRS) is helping to accomplish the goals of DOE's Office of Environmental Management's (EM) Journey to Excellence Roadmap.

"The Recovery Act has invested $1.6 billion in projects at the Savannah River Site that reduce the Department's cleanup footprint, protect human and environmental health, and will reduce the cost to taxpayers over the long term," said Dr. David Moody, site manager at DOE-Savannah River. "We have embraced this opportunity to accelerate the fulfillment of our goals for long-term stewardship and have taken pride in contributing to milestones in the EM program."

The Roadmap calls for accelerating legacy waste cleanup and reducing life-cycle costs associated with the Cold War environmental legacy, among other goals. The EM Recovery Act Program estimates that the $6 billion Recovery Act investment allows important cleanup work to be performed now that would cost approximately $13 billion in the future, saving $7 billion.

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Cover story: The photo at right, above, shows the Savannah River Site's Heavy Water Components Test Reactor during decommissioning. The bottom left photo shows the site of the reactor following completion of the project.

Bottom right: At the Savannah River Site (SRS) in South Carolina, the E Area is used for storage and disposal of waste materials. Much of this work is related to SRS Recovery Act Program's disposition of transuranic and low-level waste generated by deactivation activities. This aerial view shows administrative offices and shipping areas, various pads where transuranic waste is prepared for shipping, and trenches for the burial of low-level waste.

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As of June 2011, Recovery Act workers moved an estimated 2.6 million tons of uranium mill tailings to a permanent disposal facility in Utah. Railcars that transport the tailings from the Moab Uranium Mill Tailings Remedial Action Project site to the disposal facility about 30 miles north can be seen in the lower left corner of this aerial photo. The tailings pile is in the center of the photo. More than 200 employees were hired with Recovery Act funds received by the Moab Project. The tailings are remains from processing uranium ore for national defense programs.

July Issue Highlights Recovery Act's Role in EM's Journey to Excellence

In this July issue, EM Recovery News draws attention to how Recovery Act work is helping DOE Office of Environmental Management (EM) meet strategic goals in its Journey to Excellence (JTE) Roadmap. The Roadmap defines EM's priorities and contains seven goals, from reducing life-cycle costs and accelerating the cleanup of the Cold War legacy to improving safety, security and quality assurance toward a goal of zero accidents, incidents, and defects. Across the DOE complex, Recovery Act workers contribute to the progress toward completing EM's Roadmap goals, and their efforts are highlighted in this 26th issue of EM Recovery News. For example, in his message on Page 4, EM Senior Advisor Richard Moorer notes that Recovery Act workers are helping EM reduce its legacy footprint, disposition legacy transuranic waste, and build upon EM's safety culture. An article about the Savannah River Site (SRS) shows how Recovery Act workers are assisting with the Roadmap's Goal 1: complete the three major tank waste treatment construction projects within the approved baselines. One of those projects is the Salt Waste Processing Facility at SRS. Recovery Act funds are preparing the liquid waste operation program at SRS for integration with that facility, now under construction. At Oak Ridge, in Tennessee, Recovery Act workers are demolishing 43 facilities totaling 1.8 million square feet and cleaning out two additional facilities totaling 930,000 square feet. Their efforts help EM attain the Roadmap's Goal 4 of an approximately 90 percent reduction in the EM legacy footprint by 2015.

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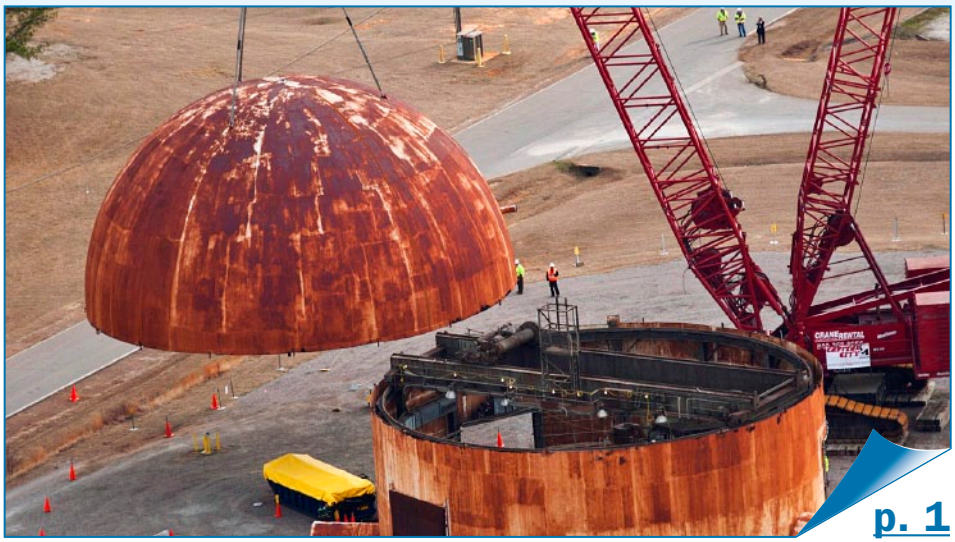

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Savannah River Site Contributes to All Seven Goals in EM's Journey to Excellence

An aerial view shows a slit trench used for the disposition of low-level waste at the Savannah River Site's E Area. Covers for the slit trenches were installed as part of Recovery Act work.

EM Senior Advisor Richard Moorer works with the senior leadership in EM to improve organizational performance, track the Journey to Excellence goals and annual metrics, and address issues impacting the Journey to Excellence goals as they arise.

Message from Richard Moorer

In this issue of EM Recovery News, we focus on how Recovery Act work is helping EM meet strategic goals in its Journey to Excellence (JTE), EM's primary management initiative.

Under the leadership of EM Assistant Secretary Inés Triay, the JTE is designed to fully engage the entire EM workforce in the planning and execution of the EM mission, which is to safely transform the environmental legacy of the Cold War into assets available for the nation's future by completing quality cleanup work on schedule and within cost, delivering demonstrated value to the American taxpayer.

The JTE began with a process involving the entire organization that produced a key guiding document, EM's JTE Roadmap. The Roadmap defines our priorities and how we arrive at them. It's a strategic plan that looks at EM's evolving world — internally and externally — in the regulatory, legislative, fiscal, judicial, technical, and human resource environments.

Our leadership has set forth a bold vision for the organization to be one of the best-managed government programs and an employer of choice in the Federal Government. To make this a reality, the initiative relies on the participation of all our employees. The process has several benefits for the organization. For example, the JTE spurs us to look to the future and improve awareness of our needs. It defines and clarifies the EM mission, providing a clear sense of direction, connecting everyone, and improving communication. It also helps us provide standards of accountability. The Roadmap articulates the organization's values, which can have a dramatic impact on the efficiency and effectiveness of our interactions with peers, customers and co-workers. It also links our organization to the entire Department by embracing Secretary Steven Chu's Management Principles and providing important input into DOE's Strategic Plan. It clearly lays out the short- and long-range goals for the organization and assigns specific goal champions — at the headquarters and field levels — for each of the seven goals.

The Roadmap was released at the end of calendar year 2010, following several months of development and review across the EM complex. Building on that, we then developed the Annual Performance Agreement with the Assistant Secretary. That agreement ensures that the near-term actions and metrics of the organization are aligned with the longer-term Roadmap strategies. It also details the high-level metrics that the EM leadership team works to obtain each fiscal year. By the time this issue of EM Recovery News reaches readers, we will have completed a management review of the agreement. That review involves assessing progress in the past fiscal year and begins the development process for metrics for the fiscal year ahead.

It is impressive to witness the extent Recovery Act work has advanced the Roadmap goals. For instance, in April 2011, EM achieved an outstanding accomplishment by surpassing our ambitious goal to reduce the EM legacy footprint by 40 percent — several months ahead of schedule. Recovery Act workers are helping EM achieve other Roadmap goals, too, by reducing the life-cycle costs of the program, dispositioning legacy transuranic waste, building upon our safety culture, and improving contract and project management. I encourage you to read about Recovery Act work in this issue of EM Recovery News — as well as previous issues — and you will easily see the link between Recovery Act projects and the goals of EM's Journey to Excellence.

EM STRATEGIC GOALS

Goal 1. Complete the three major tank waste treatment construction projects within the approved baselines.

Goal 2. Reduce the life-cycle costs and accelerate the cleanup of the Cold War environmental legacy.

Goal 3. Complete disposition of 90 percent of the legacy transuranic waste by the end of 2015.

Goal 4. Reduce the EM legacy footprint by 40 percent by the end of 2011, leading to approximately 90 percent reduction by 2015.

Goal 5. Improve safety, security and quality assurance towards a goal of zero accidents, incidents, and defects.

Goal 6. Improve contract and project management with the objective of delivering results on time and within cost.

Goal 7. Achieve excellence in management and leadership, making EM one of the best places to work in the Federal Government.

Savannah River Site Contributes to All Seven Goals...

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SRS is helping EM achieve the Roadmap goals. For example:

Goal 1: Complete the three major tank waste treatment construction projects within the approved baselines.

At SRS, Recovery Act projects are helping reduce life-cycle costs while significantly accelerating tank waste processing. Liquid waste contractor Savannah River Remediation LLC (SRR) supports EM's Enhanced Tank Waste Strategic Team. SRR has focused on 41 Recovery Act projects to accelerate closure of 49 underground liquid waste storage tanks and high-level nuclear waste processing.

Key among SRR achievements was the application of bubbler technology to the melter in the Defense Waste Processing Facility (DWPF). In a project funded by $7 million from the Recovery Act, workers installed the bubblers at DWPF, the nation's largest nuclear waste processing facility. The bubblers inject argon gas into the superheated glass and sludge waste mixture, which allows more efficient stirring of the melt pool.

The P Reactor, shown here, and the R Reactor, underwent in-situ decommissioning this year. The project involved filling the reactor buildings with more than 260,000 cubic yards of a cement-like material called grout — which would fill 80 Olympic-size swimming pools — so the buildings remain sealed and intact. Decommissioning the reactors is part of Savannah River Site's $1.6 billion Recovery Act Program.

The bubblers and related improvements are expected to increase DWPF's average annual waste canister production from 215 to over 300. When all process enhancements are in place by 2015, the projected annual canister production is expected to increase to 400, represent-

Continued on next page

Los Alamos Dig Unveils Items Ranging from Military Trucks to Toothbrush

LOS ALAMOS, N.M. – In a $110 million Recovery Act project at Los Alamos National Laboratory, workers are excavating a waste disposal site known as Material Disposal Area B (MDA-B). They have unearthed a number of unique finds in the Manhattan Project landfill, from a toothbrush and Coke bottles to a radiation protection suit and 13-foot mixing tank. Workers also uncovered remnants of an old beaker, military trucks from the 1940s, and dozens of inert naval artillery shells. Completion of the MDA-B cleanup will reduce EM's legacy footprint by more than 260,000 square feet. Excavation is scheduled for completion this summer.

The excavation of MDA-B was done inside sturdy metal buildings.

Continued on next page

ing an 86 percent improvement over past performance. Accelerated glass-waste processing will lead to expedited closure of remaining tanks.

Recovery Act funding is also preparing the SRS liquid waste operation program for integration with the Salt Waste Processing Facility (SWPF), a facility under construction that will separate highly radioactive actinide materials from salt solutions for processing at DWPF.

Many of SRR's Recovery Act tasks are supporting the installation of new infrastructure and replacement of aging equipment to ensure effective integration and uninterrupted waste processing. Successful completion of these tasks will result in accelerated waste processing at reduced costs.

Goal 2: Reduce the life-cycle costs and accelerate the cleanup of the Cold War environmental legacy.

SRR and Savannah River Nuclear Solutions (SRNS), the SRS management and operations contractor, are helping EM achieve this goal by completing work years ahead of schedule, reducing life-cycle costs at SRS by $3 billion.

Goal 3: Complete disposition of 90 percent of the legacy transuranic waste by the end of 2015.

SRNS is using Recovery Act funds to disposition 5,000 cubic meters of legacy transuranic waste that dates back to the 1970s. The waste is transported to the Waste Isolation Pilot Plant (WIPP) in New Mexico for safe, permanent disposal. Dispositioning this waste also contributes to SRS's life-cycle cost reduction.

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Members of the public gathered at the Savannah River Site (SRS) earlier this year for a road show hosted by the DOE Carlsbad Field Office. New Recovery Act-funded waste shipment containers, called TRUPACT-III, were on hand for public viewing at the show. The containers are used to ship legacy transuranic waste from SRS to the Waste Isolation Pilot Plant in New Mexico for safe, permanent disposal.

Los Alamos Dig continued...

Dozens of inert naval artillery shells have been excavated.

An old beaker and coffee cups were among the items found in MDA-B.

Savannah River Site Contributes to All Seven Goals...

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Goal 4: Reduce the EM legacy footprint by 40 percent by the end of 2011, leading to approximately 90 percent reduction by 2015.

SRS is leading the DOE complex in reducing the legacy footprint. Through the end of May 2011, SRS achieved a footprint reduction of 157.1 miles, clearing the way for potential reuse in some areas. SRS is on track to reduce the footprint by 234 square miles — a 75 percent reduction in the 310-square-mile site — by the end of September 2012.

The 2010 closure of the M Area Operable Unit (MAOU) was the first area closure at SRS under the Recovery Act. Closure of MAOU brought a 12.5 percent reduction in the SRS footprint. Recovery Act funding accelerated the eight-year project by two years. During the Cold War, M Area was home to support buildings used to fabricate fuel targets for the site's reactors. The 23 buildings that comprised the MAOU served SRS during its nuclear material production effort from 1952 to 1988. They were decommissioned prior to the Recovery Act Program.

Another highly visible footprint reduction project at SRS is the deactivation and decommissioning of P and R Reactors. These two reactors underwent in-situ decommissioning, which involved filling the reactor buildings with more than 260,000 cubic yards of a cement-like material called grout — which would fill 80 Olympic-size swimming pools. Each reactor occupies more than 300,000 square feet of space.

In May 2010, SRNS imploded the 450-foot-tall, 345-foot-wide K Area Cooling Tower, freeing more land for potential reuse. The tower was built in 1992 to cool the water used by the K-Reactor in support of national defense initiatives.

Goal 5: Improve safety, security and quality assurance towards a goal for zero accidents, incidents, and defects.

Of significant note, SRR's Recovery Act work — much of it involving heavy industrial and construction activity — has been accomplished by workers who have logged more than 1.3 million hours with only one occupational injury case that involved days away from work, work restrictions, or the need for a job transfer.

Goal 6: Improve contract and project management with the objective of delivering results on time and within cost.

Recovery Act funding came with the need for improved business systems. In May 2010, SRNS mandated the completion and implementation of Deltek Cobra as the new cost management/earned value management system and hired a Deltek Cobra Implementation

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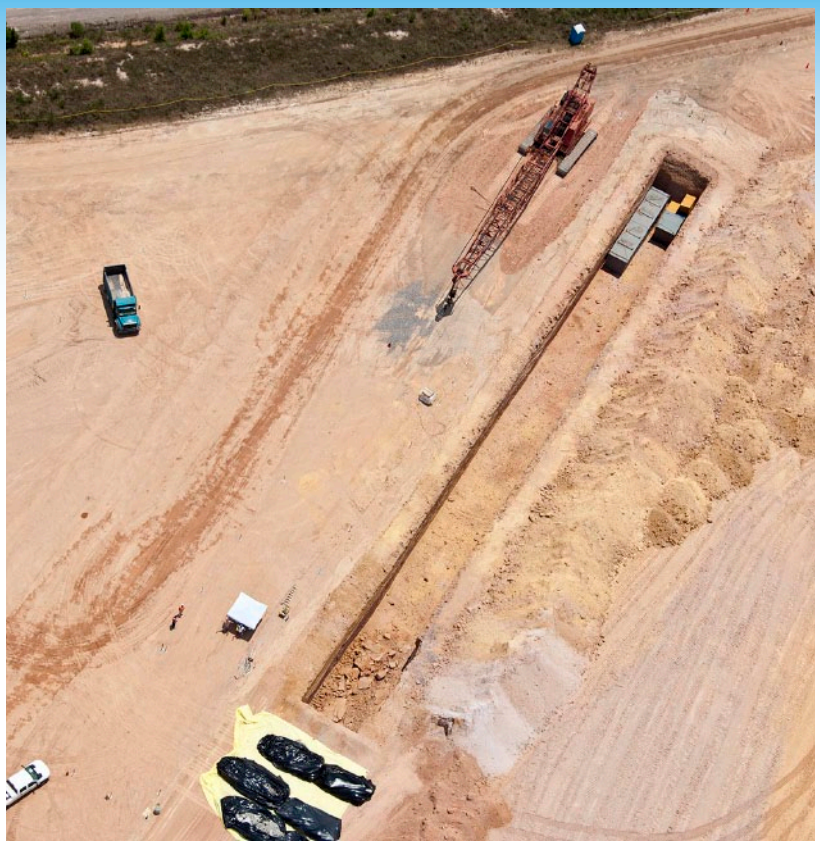
A 13-foot mixing tank was buried at the site.

Workers found inert naval artillery shells in MDA-B.

Coke bottles were among the interesting finds.



Savannah River Site Contributes to All Seven Goals...

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Manager to spearhead the effort. Earlier this year, SRNS began officially reporting data to DOE and all internal SRNS entities using Deltek Cobra. Since the implementation of this new system, the data processing completion time has decreased significantly, allowing work to be completed more efficiently.

Goal 7: Achieve excellence in management and leadership, making EM one of the best places to work in the Federal Government.

The cooperation and teamwork between DOE Savannah River and the DOE Carlsbad Field Office have brought recent success to the legacy transuranic waste program. The team is scheduled to ship a total of 5,000 cubic meters of the waste to WIPP. □

Photo left: Slit trenches in the Savannah River Site's E Area are used for the disposition of low-level waste. Recovery Act work has generated a large amount of waste that is buried in the trenches.

Los Alamos Dig continued...

A member of the excavation crew inspects the remnants of a 1940s military truck unearthed at MDA-B.

Workers excavated a radiation protection suit as part of the cleanup of the landfill.

Recovery Act Funds Lead Way to Hanford Cleanup

RICHLAND, Wash. – The road to cleanup at Hanford is paved with progress thanks to the $1.6 billion the Richland Operations Office received from the Recovery Act.

Across the 586-square-mile site, DOE contractor CH2M HILL Plateau Remediation Company is safely pursuing the goal to reduce the cleanup footprint until all that remains in 2015 is the 75-square-mile Central Plateau.

Recovery Act workers are making strides in environmental cleanup that will help deliver on the DOE goal to reduce the entire EM complex legacy footprint by approximately 90 percent by 2015. As workers demolish facilities and clean up waste sites, the land has the potential for future release and beneficial reuse.

Recovery Act workers are:

- Removing facilities no longer in service to reduce surveillance and maintenance costs;
- Finding efficiencies to reduce hazards and life-cycle costs;
- Retrieving, treating, and disposing legacy waste and fuels;
- Remediating waste sites and treating contaminated groundwater; and
- Expanding and enhancing groundwater treatment to contain and reduce key contaminants on the Central Plateau.

Along the outermost edge of the site, Recovery Act workers will complete a total of 290 square miles of footprint reduction this summer at the Hanford Reach National Monument, a 300-square mile area around Hanford formerly used for military activity and research. Crews will complete debris site cleanup at an area at the Hanford Reach National Monument called the North Slope, which spans 175 square miles.

Cleanup of the 115-square-mile Fitzner/Eberhardt Arid Lands Ecology Reserve at the Hanford Reach National Monument was completed in 2010 with the removal of more than 20 buildings and numerous debris sites. The reserve is on the eastern flank of Rattlesnake Mountain. Over the years, the site supported various missions, including anti-aircraft defense for the U.S. Army, telephone and radio communications, and wildlife reserve and environmental research.

Pump structures from the 181-KE River Pump House are lowered via crane after removal from the riverside structure. The structures will be cut up and disposed at Hanford's Environmental Restoration Disposal Facility.

Workers cut up a glovebox in the 209-E Criticality Mass Laboratory, one of the last buildings being prepared for demolition on Hanford's Central Plateau.

A box of transuranic waste is removed from an underground storage trench at the Hanford Site.

Meanwhile, closer to the center of the Hanford map, Recovery Act workers are removing ancillary and excess reactor support facilities in the 100K Area along the Columbia River. Workers remediated 29 waste sites and removed 12 of 15 facilities, including a water treatment facility that would cover more than six football fields. A similar facility is scheduled for demolition by the year's end.

While demolition of two 120,000-square-foot, below-ground water utility structures — known as clear wells — wraps up, heavy equipment has its claws ready to remove two river pump house structures at the shoreline of the Columbia River. The construction of a new, consolidated water treatment facility and electrical substation allowed the existing infrastructure and connected buildings to be removed.

The Recovery Act is helping expand and enhance Hanford's capacity for treating contaminated groundwater by funding the installation of more than 300 wells that serve three groundwater treatment facilities. Two of the treatment plants are funded by the Recovery Act. The first facility was complete in 2010 and the second — Hanford's largest — is more than 70 percent complete. □

Recovery Act Accomplishments by the Numbers at Hanford

At Hanford's Central Plateau, Recovery Act workers are accelerating cleanup of facilities, waste sites, and legacy waste and fuels with progress that includes:

- 61 facilities removed;
- 63 waste sites remediated;
- 125 pieces of contaminated equipment, known as glove boxes, removed from the Plutonium Finishing Plant;
- Ten contaminated railcars disposed and five prepared for disposition;
- 270 wells decommissioned that were no longer in service;
- 1,563 cubic meters of transuranic waste retrieved from underground storage; and
- 199 shipments of transuranic waste delivered to the Waste Isolation Pilot Plant for permanent, safe disposal.

Earlier this year at the East Tennessee Technology Park, workers demolished the Building K-33, which measured 1.4 million square feet.

Recovery Act Advances Footprint Reduction in Oak Ridge

OAK RIDGE, Tenn. – With help from the Recovery Act, Oak Ridge is providing significant contributions to EM's ambitious cleanup efforts.

The EM Recovery Act Program is on track to clean or demolish 210 facilities by Sept. 30, 2011. That work is helping EM reach the Journey to Excellence Roadmap goal of an approximately 90 percent reduction in the EM legacy footprint by 2015. Oak Ridge has placed great importance on reducing the site's footprint and is helping EM attain that goal. Through this shared vision, Oak Ridge Recovery Act workers are demolishing 43 facilities totaling 1.8 million square feet and cleaning out two additional facilities totaling 930,000 square feet.

With the removal of these facilities, Oak Ridge will improve workplace safety, lower its maintenance and surveillance costs, and gain access to contaminated soil and groundwater trapped beneath these structures so the contaminants can be removed.

"The Recovery Act and diligent work of our EM employees have made it possible for Oak Ridge to continue eliminating Manhattan Project and Cold War legacies that are harmful to the environment and serve as barriers to the site's growth in science, national security, re-industrialization, and next generation energy," said John Eschenberg, Acting Deputy Manager and Assistant Manager for EM at the Oak Ridge Office.

Earlier this year at the East Tennessee Technology Park (ETTP), workers demolished the Building K-33, which measured 1.4 million square feet. Projects like this one are helping ETTP prepare for beneficial reuse.

At the Oak Ridge National Laboratory, 37 facilities, totaling 220,000 square feet, are being demolished using Recovery Act funds. Removing these facilities, located throughout the Lab's central campus, makes way for future missions.

At the Y-12 National Security Complex (Y-12), six facilities, totaling 150,000 square feet, have been demolished. Workers recently finished cleaning out the Alpha 5 facility for eventual demolition. A similar cleanout of the Beta 4 facility is ongoing. Together, the Alpha 5 and Beta 4 measure 930,000 square feet. Oak Ridge has also cleared out its seven-acre scrap yard that contained 1,100 containers and piles of legacy waste from past operations. With the completion of these projects, Y-12 can address previously unreachable soil and water contamination. □

Recovery Act Reducing EM's Footprint in Idaho

IDAHO FALLS, Idaho – Months of preparation and attention to detail culminated with the recent controlled explosive demolition of the 1.2 million-pound roof of the building that once housed the historic Materials Test Reactor (MTR) at the Idaho Site.

The 16,900-square-foot roof and attached overhead crane came down in a few seconds as more than 70 explosive charges, set by subcontractor Controlled Demolition Inc. (CDI), ignited in rapid-fire succession.

The diligent planning in this Recovery Act project paid off with a demolition executed safely and successfully.

"You plan, plan, plan, and still sweat every little detail," said Dan Coyne, decontamination and decommissioning Vice President for CH2M-WG Idaho (CWI), cleanup contractor at the Idaho Site. "There is virtually no margin for error when using explosive charges for demolition so every possible scenario had to be evaluated."

Prior to the detonation, a 1,600-foot-wide exclusion zone was cordoned off around the 80-foot-tall structure. The MTR building's walls had been stripped off, exposing its steel and concrete steel framework.

Coyne said great teamwork among CWI, Idaho National Laboratory contractor, Battelle Energy Alliance, and DOE counterparts turned the challenging project into a well-planned, well-executed job. He also credited the experience of CDI employees for the successful roof demolition.

"It was awesome, very impressive. A lot of work went into something that lasted only three seconds," said Kirk Winterholler, D&D project manager for CWI. "Every single person on this project played a role in getting us to those three seconds. I will remember this weekend for the rest of my life."

Demolition of the remaining MTR structure will be completed this fall, reducing the Idaho Site's legacy footprint by more than 44,000 square feet.

Fueled by enriched uranium fuel and water-cooled, the MTR began operations in 1952 and was a key part of the post-World War II reactor development program. It was used to conduct essential research on metals and other materials for commercial power reactors. Knowledge gained from the MTR was essential to the development of the present-day nuclear industry.

Through May 2011, Recovery Act workers demolished 516,162 square feet of structures and facilities at the Idaho Site. □

Top photo: Workers demolished the 1.2 million-pound roof of the building that housed the historic Materials Test Reactor.

Film reel photos: Sequential views show the controlled explosion of the 1.2 million-pound roof of the building that once housed the historic Materials Test Reactor.

Recovery Act Projects Help EM, Office of River Protection Chart Course for Success

RICHLAND, Wash. – The Office of River Protection (ORP) recently completed the design of equipment for stirring the waste stored in Hanford's underground tanks before it is transferred to the Waste Treatment Plant (WTP) being built. The accomplishment marks the completion of another Recovery Act-funded project on time and under budget.

The mixer pump project is one of many being carried out at Hanford's tank farms to help EM meet strategic goals in its Journey to Excellence Roadmap. Recovery Act funds are being used to upgrade the existing tank farm infrastructure, extend the life of operating facilities critical to the cleanup and prepare for operation of the WTP.

"Recovery Act funding has allowed us to accelerate cleanup and reduce the associated life-cycle costs of managing the tank waste," ORP Deputy Federal Project Director for Recovery Act Isabelle Wheeler said. "The Recovery Act projects we've completed will help us more effectively manage and treat the waste in the years to come, which is a better value for the American taxpayer."

Additional upgrades within tank farms include modifications to Hanford's 222-S Laboratory that are helping prepare the facility for long-term waste treatment. Crews recently completed the steel structure for a new 17,000-square-foot office building that will serve more than 100 workers. The building is the last of three Recovery Act-funded structures to be built at the lab that are designed to last through the end of ORP's mission to retrieve and treat more than 56 million gallons of radioactive tank waste.

Meanwhile, Recovery Act-funded work to update drawings of the double-shell tank farms and other support facilities is almost complete. Workers have updated a total of more than 2,500 drawings that show the configuration of several Hanford tank farms, two critical operating nuclear facilities and their associated systems. The project includes updates to process, ventilation and electrical drawings critical to operations, work planning and worker safety.

The drawing reconstitution effort includes replacing manual drawings with computer-aided drawings saved as electronic files. Crews inspect all installed systems and highlight the differences between the drawings and true layout of the facility. Any variances are noted and incorporated into the drawings.

A number of modifications are planned across the Hanford Site, as waste storage facilities are transformed into waste processing feed systems that will support waste treatment and disposal. Having accurate drawings will allow subcontractors to start design work with accurate information, improving safety and worker efficiency.

"Creating a safer, more efficient work environment for our employees is another key focus of Recovery Act work," Wheeler said.

Through June, ORP has spent $289 million of its $326 million in allocated Recovery Act funds to complete 89 percent of planned work scope. All remaining Recovery Act-funded projects at Hanford's tank farms are on schedule to be completed by September 30. □

Photo: Construction workers at Hanford's 222-S Laboratory proudly place a flag firmly atop the 2713-S building to celebrate completion of the facility's structure.

DOE Sustainability Award Given to Hanford Contractor for Recovery Act Projects

Top and bottom photo: A team consisting of representatives from the Office of River Protection and prime contractor, Washington River Protection Solutions, accepts a DOE Best-in-Class Award for the construction of new facilities supporting Hanford's 222-S Laboratory that save energy and water and reduce impacts to the environment.

RICHLAND, Wash. – DOE selected Hanford's 222-S Laboratory for a Best-in-Class Award for Excellence in encouraging environmental sustainability, conserving resources and exemplifying the ideals set forth by an executive order signed by President Obama in 2009. The order challenged federal agencies to make plans and lead by example in "environmental, energy, and economic performance."

These challenges included:

- Increasing energy efficiency;
- Measuring, reporting and reducing greenhouse gas emissions;
- Conserving and protecting water resources;
- Eliminating waste, recycling, and preventing pollution;
- Leveraging agency acquisition to foster markets for sustainable technologies and environmentally preferable materials, products and services;
- Designing, constructing, maintaining, and operating high-performance sustainable buildings in sustainable locations;
- Strengthening the vitality and livability of communities in which federal facilities are located; and
- Informing federal employees about achieving these goals and how they can get involved.

Washington River Protection Solutions, prime contractor for the Office of River Protection, received the award for Leadership in Energy and Environmental Design in New Facilities for the construction of new Recovery Act-funded facilities supporting the 222-S Laboratory complex that require less energy and water and reduce negative impacts to the environment. Recent upgrades include the design and installation of additional office space, a large administration building, a climate-controlled storage facility, a complete roof replacement, light replacement, lab room upgrades and lab room HVAC replacement. In all cases, "green thinking" was part of the design and construction process to make sure the facilities' impact on the environment is minimal.

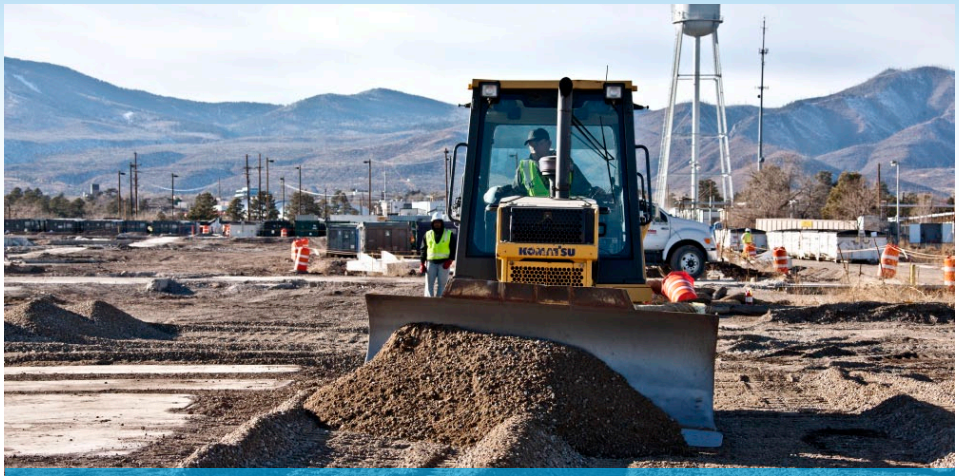
"We've replaced analytical equipment, updated office support facilities, and provided a storage facility. Overall, I think we've provided a facility that will allow us to accomplish our long-term mission of tank waste retrieval and treatment," 222-S Recovery Act Project Manager Dan Lucas said.

Recovery Act work at Hanford's tank farms is helping EM meet the goals outlined in its Journey to Excellence Roadmap by transforming the aging systems, facilities and infrastructure into high-performance assets expected to last through the end of ORP's long-term mission to retrieve and treat the 56 million gallons of radioactive waste stored in 177 underground tanks. □

A Safe End to Cold War Facilities

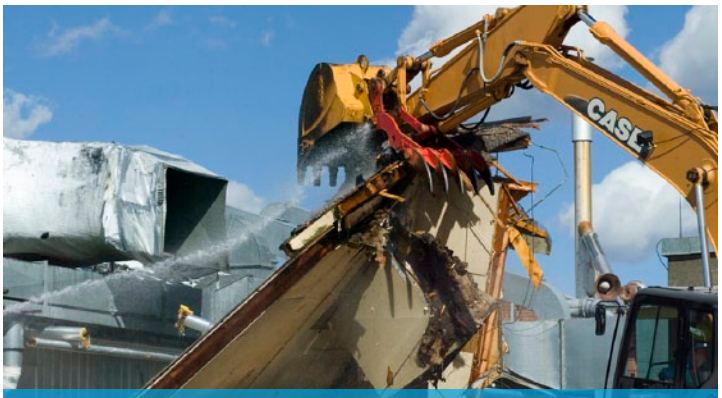
LOS ALAMOS, N.M. – Few buildings remain at what was once a bustling research complex at Los Alamos National Laboratory's Technical Area 21 (TA-21). The site that once housed 39 buildings is now mostly a smoothly graded mesa.

In little more than a year, 24 old buildings at TA-21 — some built as long ago as 1945 — were demolished. The Recovery Act-funded demolition completed in late 2010 reduced the Lab's footprint by more than 175,000 square feet and removed the remnants of groundbreaking Manhattan Project and Cold War research.



When demolition was complete, crews spread fresh soil at DP West.


The demolition of 24 buildings at Technical Area 21 at Los Alamos National Laboratory was completed six months ahead of schedule.



Recovery Act funding was used for the demolition of 24 buildings at Technical Area 21 at Los Alamos National Laboratory.

"Some of the buildings have been vacant for a long time and some were used until a few years ago," Project Manager Al Chaloupka said. "Recovery Act funding allowed us to accelerate cleanup at the site and make a lot of progress in a short period of time."

Before the buildings were demolished, pipes, fixtures and equipment were removed. Clean metal — metal that was not radiologically contaminated — was recycled and equipment salvaged when possible. The $73 million Recovery Act project was completed six months ahead of schedule and about $13 million under budget.

Many of the TA-21 buildings were built during the 1940s and 1950s and played a significant role in Manhattan Project and Cold War activities. For instance, the world's first plutonium production facility was located at the site directly after World War II, and other buildings housed labs and facilities dedicated to tritium, americium and plutonium research.

The age of the buildings and the work performed within their walls sometimes meant additional challenges during decontamination.

"Many of the buildings had asbestos-contaminated ceilings and floors in addition to other chemical contamination," Chaloupka said. "Our first priority was safety so we paid extra attention to working carefully and cautiously."

"The Recovery Act made it possible to remove these old buildings from TA-21," Chaloupka said. "We are proud to have had a role in reducing the Lab's footprint and contributing to the restoration of the site." □

First RH-TRU Fuel Examination Waste Shipment to WIPP – May 12, 2011

Argonne Reports Significant Achievement in EM Recovery Act Work

ARGONNE, Ill. – Argonne National Laboratory recently marked a major achievement in EM Recovery Act projects that is helping reducing the site's legacy nuclear footprint.

On May 12, The Lab completed its first shipments of a new waste stream from its Alpha Gamma Hot Cell Facility (AGHCF) to the DOE Waste Isolation Pilot Plant (WIPP) in New Mexico for safe, permanent disposal.

The first two shipments of the remote-handled transuranic waste stream from AGHCF — irradiated fuel test specimen waste, also referred to as fuel examination waste — left the Argonne site.

"The project still has a lot of work remaining," said Cindy Rock, who manages Argonne's nuclear de-inventory program. "But completing successful milestones like this one shows the value of our team's effort and helps everyone focus on the scope of work ahead with the same, if not more, commitment and enthusiasm than we started with."

This success was the result of three years of collaboration and hard work by Argonne and DOE's Argonne Site Office (ASO). With the help of Recovery Act funds, the Lab acquired the project management and technical skill set necessary to formally develop a detailed approach and project baseline. AGHCF project and operations staff, shipping, health physics and waste management staff worked for two years in collaboration with skilled industry partners to complete the detailed, labor-intensive technical and operational groundwork. Throughout the effort, the team received support from many organizations, including UChicago Argonne LLC, which manages the Lab, Argonne employees and subcontractors, DOE's Office of Science, Carlsbad Field Office, Idaho Site, WIPP Central Characterization Project through Washington TRU Solutions, LLC, and Idaho National Laboratory.

Between October 2010 and mid-June 2011, Argonne made 36 shipments of remote-handled transuranic waste to WIPP. Argonne is scheduled to complete an additional 31 shipments of that waste, including fuel examination waste, to WIPP by the end of September 2011. □

> **"Completing successful milestones like this one shows the value of our team's effort and helps everyone focus on the scope of work ahead with the same, if not more, commitment and enthusiasm than we started with."**
>
> *Cindy Rock, who manages Argonne's nuclear de-inventory program*

Top photo: The first two shipments of a new remote-handled transuranic waste stream leave Argonne National Laboratory.

Inset photo: Argonne and DOE Argonne Site Office (ASO) personnel stand in front of Argonne's first shipment of a new remote-handled transuranic waste (RH-TRU) stream to the Waste Isolation Pilot Plant in New Mexico for disposal in May 2011. Pictured in the front row are Willis Ray, RH Operations Superintendent, Argonne National Laboratory (ANL); Dale Dietzel, Federal Project Director for "Next Phase" TRU Waste Disposition Campaign, ASO; Sue Lorenz, Division Director, Waste Management Operations, ANL; Joanna Livengood, Manager, ASO; Andrew Gabel, Federal Project Director for Alpha Gamma Hot Cell Facility (AGHCF), ASO; Cindy Rock, Program Manager, Nuclear Operations Division, ANL; and Dan Pancake, Project Manager, AGHCF "Next Phase" TRU, ANL.

DOE Completes Cleanup of Legacy Transuranic Waste at New York, California Sites

Mobile loading operators prepare drums of contact-handled transuranic waste for loading into transportation containers.

Contact-handled transuranic waste is loaded into a shipping container.

WASHINGTON, D.C. – DOE recently completed cleanup of legacy transuranic waste at the Nuclear Radiation Development, LLC (NRD) site near Grand Island, N.Y., and at the Lawrence Berkeley National Laboratory in Berkeley, Calif.

The two locations became the 18th and 19th sites to be completely cleaned of legacy waste. The cleanups were completed as part of a $172 million investment from the Recovery Act to expedite legacy transuranic waste cleanup activities across the DOE complex.

At the two sites, contact-handled defense-related transuranic waste was characterized and certified for transportation. It was then sent to the Advanced Mixed Waste Treatment Project in Idaho, where it will be characterized for disposal and then shipped to the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico. Transuranic waste consists of materials contaminated with radioactive elements that have atomic numbers greater than uranium, including tools, rags, protective clothing, sludge and soil.

At the NRD site, 18 cubic meters of contact handled transuranic waste, packaged in 87 steel drums, were loaded into nine TRUPACT-II shipping packages. On June 24, the packaged waste was shipped from the site in three truckloads.

On June 3, a single shipment of contact-handled transuranic waste was removed from the Lawrence Berkeley National Laboratory.

"While this was only a single shipment, it is still very important to the DOE-EM cleanup mission. Thanks to the Recovery Act, this is another site cleaned up of all legacy transuranic waste earlier than planned," Carlsbad Field Office Recovery Act Federal Project Director Casey Gadbury said.

NRD and the Lab join three other sites across the DOE complex that completed transuranic waste cleanup with Recovery Act funds. The other sites are Nevada National Security Site and General Electric Vallecitos Nuclear Center and Lawrence Livermore National Laboratory's Site 300 in California.

Projections call for the completion of legacy transuranic waste cleanup at Sandia National Laboratories in New Mexico, Argonne National Laboratory in Illinois, and Bettis Atomic Power Laboratory in Pennsylvania later this year. □

EM Cost Estimating Team Met Recovery Act Challenges

The EM Consolidated Business Center Office of Cost Estimating and Analysis team includes, left to right, Lori Rice, Michael Mills, Russ Donaldson, Allen Moe, Steve Okszewski, Kevin Barry, and Office Director Terry Brennan.

CINCINNATI – The Environmental Management Consolidated Business Center (EMCBC) has filled a need to establish a program cost estimating function to support the EM mission.

Locating the Office of Cost Estimating and Analysis (OCE&A) at the Cincinnati-based EMCBC, the organization that provides technical and business services to EM, allowed the office to support the large amount of contracting activity managed by EMCBC.

OCE&A's formation in 2008 came at a good time: just before the Recovery Act invested $6 billion into EM's Cold War cleanup in 2009. The office was able to provide accurate, independent government cost estimates (IGCE) used to evaluate contractor proposals for the Recovery Act cleanup.

"The team literally hit the ground running. We barely formed the team in 2008 and began training them in the requirements of government cost estimating and the EM mission when we learned that the Recovery Act was going to put $6 billion in work across the complex," OCE&A Assistant Director Terry Brennan said.

"Looking back on the last two years of Recovery Act requirements, the team completed 27 IGCEs with a value of more than $4.6 billion. The cost estimates were completed within the established schedules requested by the sites or EM headquarters," Brennan said. "I am very proud of what this small team has accomplished. They jumped in and got a lot of cost estimating work done within some tight deadlines with the Recovery Act," Brennan said.

"These IGCEs were used to modify existing contracts to perform the extra work that would be performed under the Recovery Act. The fact that we were able to execute the Recovery Act work, in addition to supporting other major ongoing EM projects, represented a significant accomplishment," Brennan said.

The IGCE is the government's estimate of the resources and projected cost of the resources a contractor will incur in the performance of a contract. These costs include direct costs, such as labor, supplies, equipment, waste treatment and disposition, or transportation; and indirect costs, such as labor overhead, material overhead, and general and administrative expenses.

The IGCE serves several functions that include:

- Reserving funds for a contract as part of acquisition planning;
- Helping determine price reasonableness in cases in which one bidder responds to a solicitation; and
- Assisting in establishing the government's initial negotiation position. □

FOR MORE INFORMATION ON
EM RECOVERY ACT WORK PLEASE VISIT:

http://www.em.doe.gov/emrecovery/

http://www.recovery.gov

http://recoveryclearinghouse.energy.gov

EMAIL ANY QUESTIONS OR COMMENTS TO:

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