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EM Recovery News

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The Certainty of Safety: Unexpected Discovery Slows Excavation

LOS ALAMOS, N.M. – A major wildfire that closed the Los Alamos National Laboratory for more than a week and soil with higher than expected contamination levels slowed excavation efforts at the Lab's Material Disposal Area B (MDA-B) site at the eleventh-hour.

The Lab received $212 million in American Recovery and Reinvestment Act funding to decontaminate and demolish 24 Cold War buildings, install 16 groundwater monitoring wells and excavate MDA-B, one of the nation's oldest waste disposal sites.

Building demolition and installation of the wells were completed ahead of schedule and under budget early this year. The excavation of MDA-B, which was used as a waste disposal site for the Manhattan Project from 1944 to 1948, has presented a number of unforeseen challenges.

"We began excavating the last couple of thousand cubic yards of soil and discovered unexpectedly higher levels of radioactivity," said MDA-B Program Director Al Chaloupka. "As a consequence, we slowed excavation dramatically so we could be certain the work is done safely."

With about 98 percent of the excavation complete and only about 20 feet of soil remaining to be excavated in one of the protective enclosures, the discovery of higher levels of radioactivity activated safety procedures already in place.

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Cover photo: Waste generated by building demolition and the installation of groundwater monitoring wells has been hauled to licensed disposal facilities.

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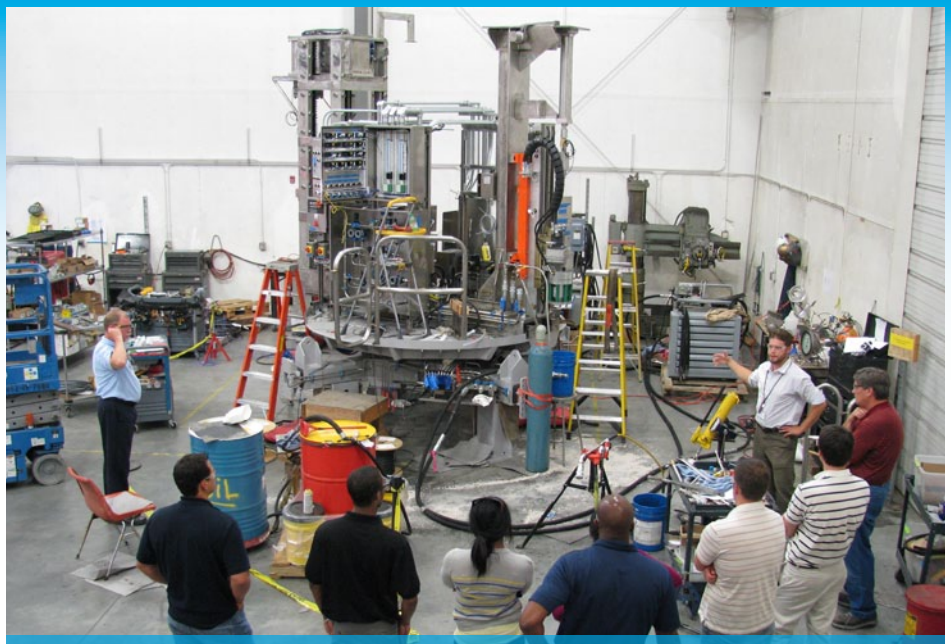

At the Office of River Protection at Hanford in the state of Washington, work is wrapping up on a new, Recovery Act-funded core sampling system that will replace decades-old equipment currently being used in tank farms.

Newsletter Points to Achievements as Recovery Act Cleanup Heads Toward Finish

By the end of September 2011, the DOE Office of Environmental Management's (EM) American Recovery and Reinvestment Act Program is scheduled to complete the majority of projects in its $6 billion environmental cleanup portfolio. In this issue of EM Recovery News, we focus attention on Recovery Act work recently completed through August 2011 at several sites around the DOE complex. For example, in an article on the Savannah River Site in South Carolina, EM Recovery News provides updates on the deactivation and decommissioning of the historic P and R Reactors, which together occupy more than 600,000 square feet. Demobilization at those reactor sites is under way following extensive projects in which workers used more than 260,000 cubic yards of grout to seal the reactors, demolished stacks, and consolidated coal ash inside basins and placed final, regulator-approved covers over them. Brookhaven National Laboratory in New York recently finished installing an impermeable cap over the grounds of the Brookhaven Graphite Research Reactor building to prevent water from infiltrating contaminated soil. At the Paducah Site, workers finished cleanup of the C-340 Metals Plant, an inactive Cold War complex, in preparation for demolition. Cleanup updates in this issue follow recent good news for the program: in late August 2011, Recovery Act payments climbed past $5 billion. These payments from the $6 billion EM received from the Recovery Act show the program's substantial progress as it accelerates the nation's Cold War cleanup while benefiting more than 35,000 workers.

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The Certainty of Safety: Unexpected Discovery Slows Excavation

Hanford engineers and operators worked together to overhaul a 20 year old control system at Hanford's tank farms by replacing it with a system compatible with the one that will be used at the Waste Treatment Plant now under construction.

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"Our operations personnel are being very diligent about excavation, packaging and contamination control of our waste containers," Chaloupka said. "Our bottom line is to do this work safely."

Even with unexpected developments like a major wildfire and highly contaminated soil, the excavation of MDA-B will be completed within the next few weeks, bringing the area one step closer to becoming ready for beneficial reuse.

The projects funded by the Recovery Act accelerated the Lab's environmental cleanup work, reducing the facility's footprint by nearly 200,000 square feet, protecting local groundwater through the installation of wells, and eventually cleaning up a waste disposal site used from 1944 to 1948. □

Top photo: An aerial view shows Technical Area 21 (TA-21) at Los Alamos National Laboratory. The Recovery Act invested in the decontamination and demolition of 24 Manhattan Project and Cold War buildings at TA-21. Enclosures for the Recovery Act-funded excavation of one of the nation's oldest waste disposal sites, Material Disposal Area B, can be seen in the upper left corner of the photo.

Left photo: An excavated trench behind one of the moveable protective enclosures at Material Disposal Area B.

Bottom photo: Anomalies discovered during excavation of Material Disposal Area B are repackaged inside an enclosure.

Savannah River Site Moves Closer to Achieving Recovery Act Footprint Reduction Goals

AIKEN, S.C. – Completing more than 85 percent of its $1.6 billion Recovery Act Program this summer, the Savannah River Site (SRS) has achieved many accomplishments in its Cold War legacy cleanup efforts through safe, skilled and transparent work.

Upon completion of Recovery Act work, 75 percent of the site's 310 square mile operational footprint will be reduced, three reactors will be decommissioned, and nearly 5,000 cubic meters of legacy transuranic (TRU) waste will be remediated, repacked and ready for shipment to a permanent disposal location.

The reduction in the Cold War footprint will pave the way for future missions at SRS.

The Recovery Act funded more than 110 projects at SRS. The majority of them are finished and SRS is focused on the few that remain.

Workers sealed the last entrances to the Cold War, defense-related P and R Reactors in late June 2011. To honor the occasion, SRS placed a time capsule just inside the door to P Reactor before it was sealed. Welding the entryways was a final step in the reactors' deactivation and decommissioning (D&D), the primary work allowing for closure of the P and R Area Operable Units. The units house the reactors and the structures and facilities that supported the production of nuclear materials.

For the first time at the Savannah River Site, the TRUPACT-III shipping package exits through the gates of the site in August 2011, en route to the Waste Isolation Pilot Plant.

When demobilization is complete this month, the reduction in footprint at P and R Areas will total 61 square miles.

Completed work that contributes to P and R Area's share of the scheduled 75 percent footprint reduction includes:

- Preliminary D&D work, finished in January 2011. Workers used grout, a cement-like material, to seal the reactors' water-collection basins. They also placed concrete caps over reactor vessels, grouted below-grade portions of the buildings and made modifications to selected roof areas. SRS used more than 260,000 cubic yards of grout to decommission both reactors.
- Demolition and removal of 145 foot tall, 700-ton stacks in October 2010.
- Remediation of the 40-acre P Ash Basin and 13-acre R Ash Basin. Workers removed vegetation, consolidated ash, and installed a cover that consists of backfill, topsoil, and sod. R Ash Basin was finished in November 2010, eight months ahead of schedule. P Ash Basin was completed in May 2011, nearly two months ahead of schedule. The basins were used for previous coal powerhouse operations.
- Sealing off access to process sewer lines, which carried industrial process water discharged from the reactors. This work was accomplished by filling structures and manholes with flowable fill concrete. The project was finished in April 2011.

Final work at another SRS reactor, the Heavy Water Components Test Reactor, was completed in June 2011. D&D of the reactor included dome removal in February 2011, grouting of substruc-

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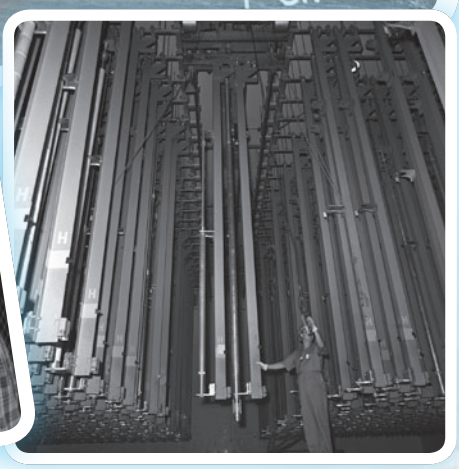
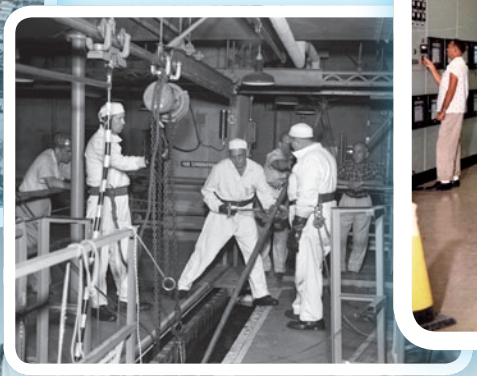
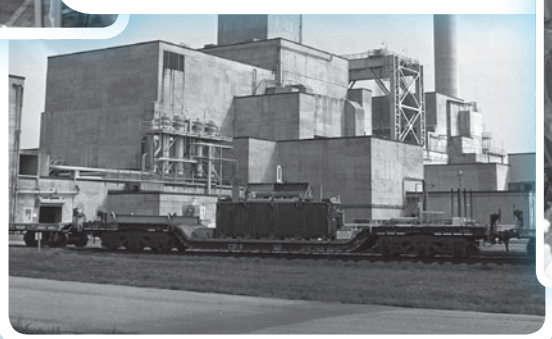


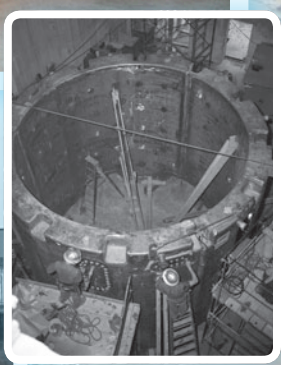
From the Beginning to the Decommissioning

THEN

These photos from the 1950s show the construction of Savannah River Site's P and R Reactors, as well as activities at the reactors once they became operational that decade. Each of the reactors, which formerly produced nuclear materials, occupies more than 300,000 square feet.







NOW

A major cleanup that's part of the Savannah River Site's $1.6 billion Recovery Act Program focused on the deactivation and decommissioning of the P and R Reactors. Recovery Act workers sealed the reactor buildings and associated facilities with grout, a cement-like mixture, and placed concrete caps over the reactor vessels. Workers also demolished and removed stacks weighing 700 tons each, and cleaned up the reactors' ash basins. The projects at both reactors will be complete this month.

One of four new submersible blender pumps is being prepared for testing at the Savannah River Site. Those pumps, along with six submersible mixer pumps and five submersible transfer pumps, were purchased with $17 million in Recovery Act funds. They will be used to accelerate tank closure in the site's two tank farms.

Recovery Act Team Prepares to Finish Strong

AIKEN, S.C. – The liquid waste contractor at the Savannah River Site (SRS) is gearing up for a safe, strong, and successful finish to its Recovery Act activities.

Savannah River Remediation (SRR) has only 10 of 41 activities remaining before all of its Recovery Act work is finished.

Those remaining activities, slated for completion by Sept. 30, 2011, are part of four major project areas that are being supported by nearly half of the $200 million SRS received from the Recovery Act for liquid waste cleanup. The project areas are waste treatment, salt disposition integration, tank closure infrastructure, and facility operations.

SRR Recovery Act Program Manager Mark Schmitz called the Recovery Act a catalyst for jobs and for the acceleration and completion of work in the liquid waste program.

"Through the efforts of the SRR Recovery Act workforce, 41 work scopes will be essentially completed under the program," Schmitz said. "SRR is proud to have accomplished many milestones while performing the work on schedule and within budget."

Remaining tank closure activities include the installation of blender and transfer pumps needed for waste removal operations. The pumps will enable existing waste to be removed and transferred to other tanks for treatment and disposition, resulting in hazardous waste reduction and accelerated tank closure.

Six of the remaining 10 activities involve integrating existing facilities with the Salt Waste Processing Facility (SWPF). When complete, the SWPF will process 6 million gallons of liquid salt waste a year, up from 1 million gallons currently.

SRR's Recovery Act Program has benefited more than 2,120 workers in the past two years. At its peak, the program employed more than 600 people. The Recovery Act funded new positions and existing positions that would otherwise have been left vacant due to a lack of funding.

SRR's Recovery Act work — much of it involving heavy industrial and construction activity — has been accomplished by workers who have logged more than 1.5 million hours with only one occupational injury case that involved days away from work, work restrictions, or the need for a job transfer.

"That is an incredible statistic because of the type of hazardous work performed and in some of the most extreme weather conditions," Schmitz said. □

Brookhaven Recovery Act Workers Install Cap, Advance Reactor Decommissioning

UPTON, N.Y. – Recovery Act workers completed the installation of an impermeable cap over the grounds of a reactor building at Brookhaven National Laboratory (BNL) to prevent rain and other moisture from infiltrating radiologically contaminated soil.

The Lab used $2 million from the Recovery Act to install the engineered cap for controlling water infiltration in the area surrounding the Brookhaven Graphite Research Reactor (BGRR). The project employed 33 workers.

Installation of the cap is part of broader Recovery Act work at BGRR to decommission the reactor. The decommissioning is scheduled for completion later this year following the removal and disposal of the reactor's bioshield, which protected personnel from radiation emitted from the reactor's core when the BGRR was in operation. That project will end EM's Recovery Act-funded cleanup activities at the Lab.

BGRR Once Served as Principle Research Reactor in U.S.

The BGRR was the first reactor constructed for the sole purpose of providing neutrons for research. It was one of the principle research reactors in the U.S. until operations were terminated and deactivation was initiated on June 10, 1968.

During removal of the BGRR fuel canal in 2005, approximately 820 cubic yards of radiologically contaminated soil and concrete were excavated and disposed at an approved disposal facility. However, pockets of radiologically contaminated soil in hard-to-reach areas remain at several locations within the BGRR complex. The cap and monitoring well system will prevent water from entering these radiologically contaminated soils and the aquifer below.

Top: Recovery Act workers demolish the Building 802 Fan House.

Bottom: Recovery Act workers excavate the area outside the Brookhaven Graphite Research Reactor to prepare for the installation of an impermeable cap.

As part of the project, workers removed a temporary asphalt cap, excavated surface soils, and graded the existing property to create a slope away from the BGRR building. They also laid a plastic liner over the soil and covered it with protective layers of sand and sealed asphalt. The work was performed by contractors, with BNL providing engineering and safety oversight.

Lab Finishes Recovery Act Work Involving Utilities, Structures

The Lab also recently finished Recovery Act work involving underground utilities and ancillary buildings.

In the utilities project, workers excavated, removed, and disposed hundreds of feet of legacy underground piping that was radiologically contaminated. Most of this piping was part of a ventilation system serving several nearby radiological facilities. The piping was removed in preparation for decommissioning the High Flux Beam Reactor (HFBR) Stack, which will occur before the end of the decade.

The two above-ground ancillary structures, known as fan houses, were located next to the HFBR Stack and contained radiologically contaminated ventilation systems that supported both HFBR and BGRR operations. Both fan

Continued on next page

houses were demolished after workers removed all internal components, many of which were recycled or reused on site, reducing waste disposal costs.

Recovery Act work at HFBR allowed the research reactor to safely enter hibernation until radiation levels naturally decay so the facility can be demolished after a safe storage period not to exceed 65 years. The Recovery Act allowed BNL to launch the start date for that project in April 2009, nine years earlier than planned. □

Above photos: Recovery Act workers install a portion of the impermeable cap at the Brookhaven Graphite Research Reactor.

Workers remove a TRUPACT-III shipping package from a trailer for placement onto a fixed platform for loading large boxes containing legacy transuranic waste for shipment to the Waste Isolation Pilot Plant for safe, permanent disposal.

Savannah River Site Moves Closer...

Continued from page 5

tures, and final demolition of topside structures in March 2011. The reactor was a pressurized heavy water test reactor used to develop candidate fuel designs for heavy water power reactors.

SRS's legacy transuranic (TRU) waste program has dispositioned nearly 1,800 cubic meters of the 5,000 cubic meter inventory. The F and H Canyons and a former low-activity waste vault provided necessary capabilities to remediate and resize TRU waste stored in drums and boxes. The newest facility, the Recovery Act-funded F-Canyon Box Remediation Facility, came online in April 2011. SRS's legacy TRU inventory will be dispositioned at DOE's Waste Isolation Pilot Plant near Carlsbad, N.M.

Within weeks of receiving Recovery Act funding in April 2009, the Solid Waste Management Division at SRS began excavating waste stored in 83 buried culverts and six large concrete boxes. Known as TRU Pad I, the now empty concrete pad contained some of the most challenging waste in the program.

In D Area, the Recovery Act team completed work at the detritiation units. Temperatures ranging from 212 to 1,500 degrees Fahrenheit were used to remediate tritium contamination from 1,650 cubic yards of D Area soils and concrete.

In F Area, the Recovery Act funded the installation of a 1,140-foot extension to an existing underground barrier wall system to reduce and control migration of groundwater contaminated with heavy metals and radionuclides resulting from past operation at a nearby hazardous waste management facility. Final grading and site restoration are complete.

The M Area Operable Unit, a former reactor fuel manufacturing area that comprised 45 acres, was the first SRS area to be closed under the Recovery Act upon completion in October 2010.

In May 2010, workers imploded the K Cooling Tower and disposed of the resulting debris in August 2010. Approximately 1,300 pounds of explosives and approximately 20,000 linear feet of detonating cord were used to fell the tower into a predetermined fall area in a controlled fashion. □

Recovery Act Leaves Lasting Impression on Hanford Footprint

RICHLAND, Wash. – Workers are wrapping up an environmental cleanup funded by the $1.6 billion the Richland Operations Office received from the Recovery Act. The funding has led to a significant reduction in the Hanford Site footprint and accelerated the removal of contaminated waste and buildings from decades of plutonium production. In Recovery Act projects, workers have:

- Reduced the Hanford Site by approximately 50 percent, or 290 square miles;
- Cleared away dozens of facilities and waste sites;
- Removed legacy waste and fuels from onsite inventory and underground storage;
- Prepared complex facilities for demolition ahead of schedule; and
- Constructed a network of wells, pipelines and treatment systems to expand and enhance groundwater treatment capabilities by millions of gallons per day.

As of August 2011, DOE contractor CH2M HILL Plateau Remediation Company reached 13 of its 19 Recovery Act targets ahead of schedule, and remaining Recovery Act goals are on pace for completion by year's end.

The Recovery Act work being completed by CH2M and other Hanford contractors is helping DOE reduce Hanford's footprint from 586 square miles to 75 square miles by 2015. Recovery Act work at Hanford moved or removed hazards away from the Columbia River and put people to work on shovel-ready tasks to facilitate cleanup into the future.

Large, complex facilities like the Plutonium Finishing Plant and the U Plant processing canyon are also being readied for demolition. Hanford's largest groundwater treatment facility is nearly complete and expected to treat nearly 24 billion gallons of contaminated groundwater in its operational lifetime. Temporary infrastructure also has been installed to support future cleanup of Hanford's K East and K West plutonium production reactors.

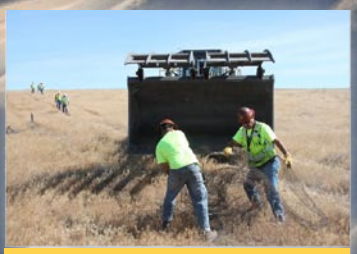
Recovery Act projects have accelerated critical cleanup at Hanford and the work completed sets the stage for cleanup on the Central Plateau, the 75-square-mile portion of the site that would remain following a reduction in footprint by 2015. □

Mission Accomplished

- ✓ 67 buildings totaling nearly 675,000 square feet demolished
- ✓ 303 groundwater wells installed
- ✓ 280 groundwater wells decommissioned
- ✓ 1,992 cubic meters of low-level and mixed low-level waste shipped for treatment
- ✓ 1,154 cubic meters of transuranic waste repackaged for shipment to the Waste Isolation Pilot Plant in New Mexico
- ✓ 214 TRUPACT-II shipments complete
- ✓ 84 cubic meters of remote-handled transuranic waste retrieved
- ✓ 2,193 cubic meters of contact-handled transuranic waste dispositioned
- ✓ 16 railcars relocated for display or disposed of on-site
- ✓ 85 waste sites remediated
- ✓ 1 groundwater treatment facility constructed and operational; second and largest facility 95 percent complete

Hanford Site Footprint Reduction

100-K Area

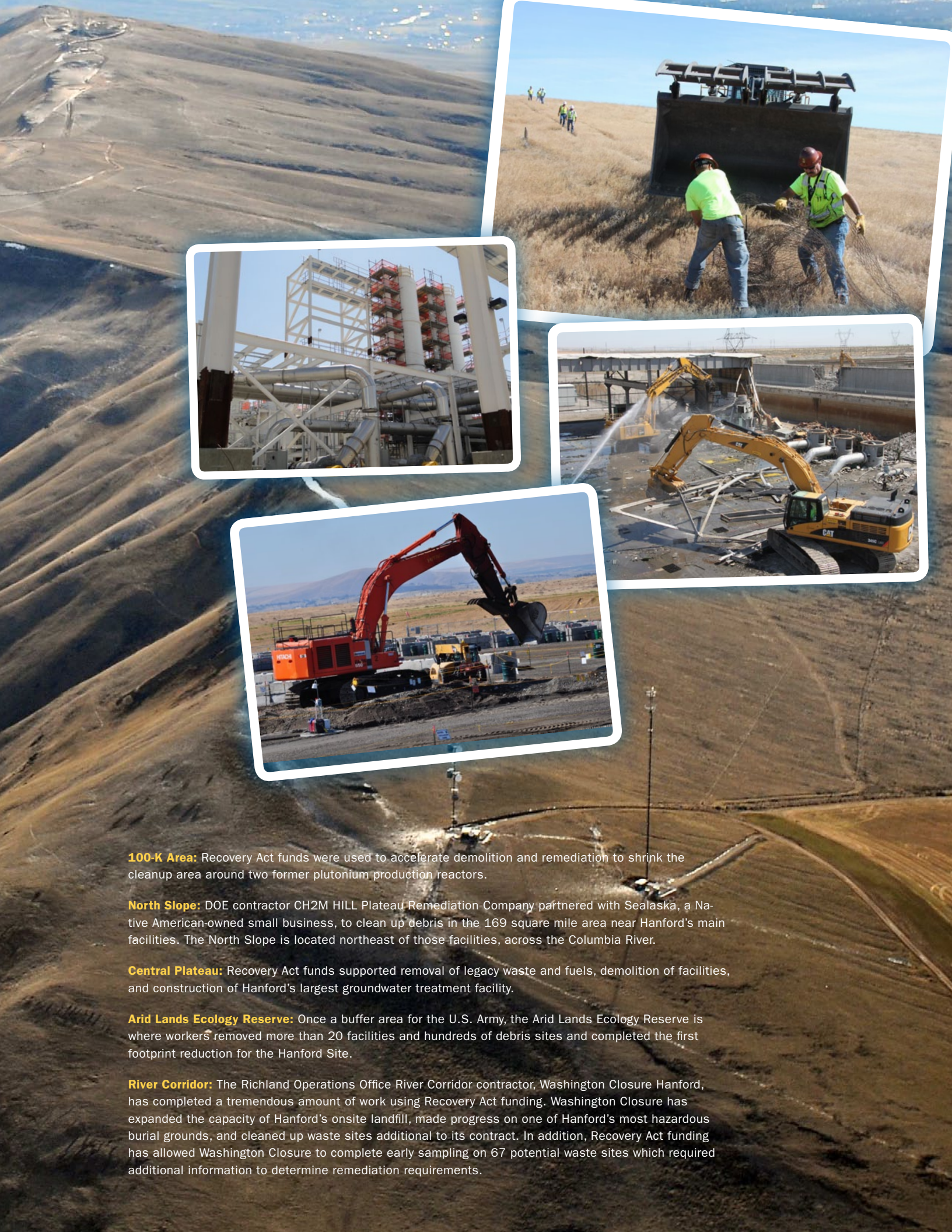


North Slope

Central Plateau

River Corridor

Arid Lands Ecology Reserve



100-K Area: Recovery Act funds were used to accelerate demolition and remediation to shrink the cleanup area around two former plutonium production reactors.

North Slope: DOE contractor CH2M HILL Plateau Remediation Company partnered with Sealaska, a Native American-owned small business, to clean up debris in the 169 square mile area near Hanford's main facilities. The North Slope is located northeast of those facilities, across the Columbia River.

Central Plateau: Recovery Act funds supported removal of legacy waste and fuels, demolition of facilities, and construction of Hanford's largest groundwater treatment facility.

Arid Lands Ecology Reserve: Once a buffer area for the U.S. Army, the Arid Lands Ecology Reserve is where workers removed more than 20 facilities and hundreds of debris sites and completed the first footprint reduction for the Hanford Site.

River Corridor: The Richland Operations Office River Corridor contractor, Washington Closure Hanford, has completed a tremendous amount of work using Recovery Act funding. Washington Closure has expanded the capacity of Hanford's onsite landfill, made progress on one of Hanford's most hazardous burial grounds, and cleaned up waste sites additional to its contract. In addition, Recovery Act funding has allowed Washington Closure to complete early sampling on 67 potential waste sites which required additional information to determine remediation requirements.

Recovery Act Workers Hit Cleanup Milestone at Paducah Site

PADUCAH, Ky. – Crews for DOE cleanup contractor, LATA Environmental Services of Kentucky, finished work in the C-340 Metals Plant at the Paducah Site in early August of this year. The two year cleanup project means another inactive Cold War complex is ready for demolition.

About $36 million of the Paducah Site's estimated $80 million in Recovery Act funding went to the Metals Plant project. Recovery Act funding also paid for significant cleanup of two other large structures, the C-746-A East End Smelter and C-410 Feed Plant.

"The Recovery Act has done what it was designed to do," said Rob Seifert, the Department's Paducah Site Recovery Act Project Director. "It created about 240 cleanup jobs at the peak of the project and allowed us to accelerate our decontamination and decommissioning program."

Metals Plant workers met 25 Recovery Act milestones starting in late 2009. Two of the five structures comprising the Metals Plant were demolished in summer 2010. The remaining three major sections are expected to be torn down in 2012 at an estimated cost of less than $10 million, including waste disposition.

Another major milestone took place in December 2010 — eight months ahead of schedule — when a crew finished cleaning up a four-story, 4,200 square foot section of the Metals Plant. Known as the Slag Building, the structure was once used in uranium metal production.

The Metals Plant — seven stories high in some places and covering about 65,000 square feet — operated from 1956 until the mid-1980s. It was mainly used to convert depleted uranium hexafluoride (DUF_6) into uranium tetrafluoride (UF_4), known as green salt, as well as to convert UF_4 into uranium metal.

Metals Plant cleanup generated more than 100,000 cubic feet of systems waste, enough for roughly 200 truckloads.

"Reaching demolition readiness on the C-340 Project is a significant accomplishment for the LATA Kentucky team because of the hazardous nature of the materials and equipment that were managed and disposed of safely and efficiently," said Craig Jones, LATA Kentucky Projects Manager.

The Recovery Act also led to these significant cleanup accomplishments at the Paducah Site:

- Cleanup of the C-746-A East End Smelter came in $12 million under budget. The 21,000 square foot complex was torn down in September 2010, accelerating its removal schedule by 22 years. Built in the 1950s as a storage facility, the Smelter was converted in the 1970s to make ingots, primarily nickel. Operations at the Smelter ended in 1986.
- Demolition of the half-acre eastern third of the C-410 Feed Plant in late June 2011, three months ahead of schedule. Savings and manpower from the Smelter project were shifted to the Feed Plant. Feed Plant cleanup is ongoing in anticipation of the complex being torn down in 2012. Once a nine-facility complex spanning nearly 200,000 square feet, it operated from 1957 to 1977 to produce uranium hexafluoride (UF_6) and fluorine. □

A Recovery Act worker removes a light fixture in the Metals Plant to prepare the facility for demolition.

Uranium hexafluoride valve test cabinets (middle above), line a section of the fifth floor of the C-340 Metals Plant before cleanup. Directly above, the cabinetry is gone.

Recovery Act Workers at Hanford Tank Farms Approach Successful Finish

RICHLAND, Wash. – A flurry of Recovery Act projects at Hanford's tank farms are coming to a close by the end of September 2011.

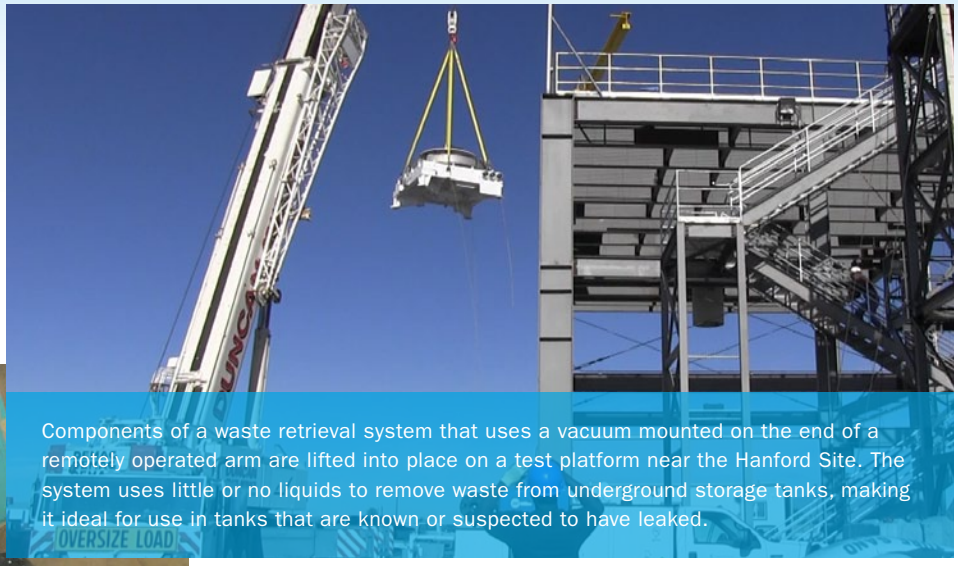
Through July, the Office of River Protection (ORP) and prime contractor, Washington River Protection Solutions (WRPS), had worked to complete more than 93 percent of the planned Recovery Act work scope.

Crews at Hanford have removed and replaced nearly 800 feet of waste transfer lines that will carry waste from underground storage tanks to the new Waste Treatment Plant currently under construction.

- Testing began on a Recovery Act-funded system that uses a vacuum mounted on the end of a remotely operated arm to retrieve tank waste. The technology uses spray nozzles to break up the waste while the vacuum removes it from the tank. "It's a real game changer in the way we remove waste from our tanks," said Tank Retrieval & Closure Technology and Systems Planning Manager Eric LaRock.

- Important upgrades to eight waste transfer lines in Hanford's SY Farm are nearly complete. Crews have replaced nearly 800 feet of pipe which will play an integral role in carrying waste from underground storage tanks to the new Waste Treatment Plant (WTP) currently under construction.

- Work on the first phase of a remote sampling demonstration project is under way. The purpose of the project is to determine whether the waste that will ultimately be sent to the WTP can be accurately sampled. "We've clearly shown in our small scale mixing work that we can sample extreme waste particulates in a manner representative of what we send down the pipe," said Project Manager Mike Thien.



Components of a waste retrieval system that uses a vacuum mounted on the end of a remotely operated arm are lifted into place on a test platform near the Hanford Site. The system uses little or no liquids to remove waste from underground storage tanks, making it ideal for use in tanks that are known or suspected to have leaked.

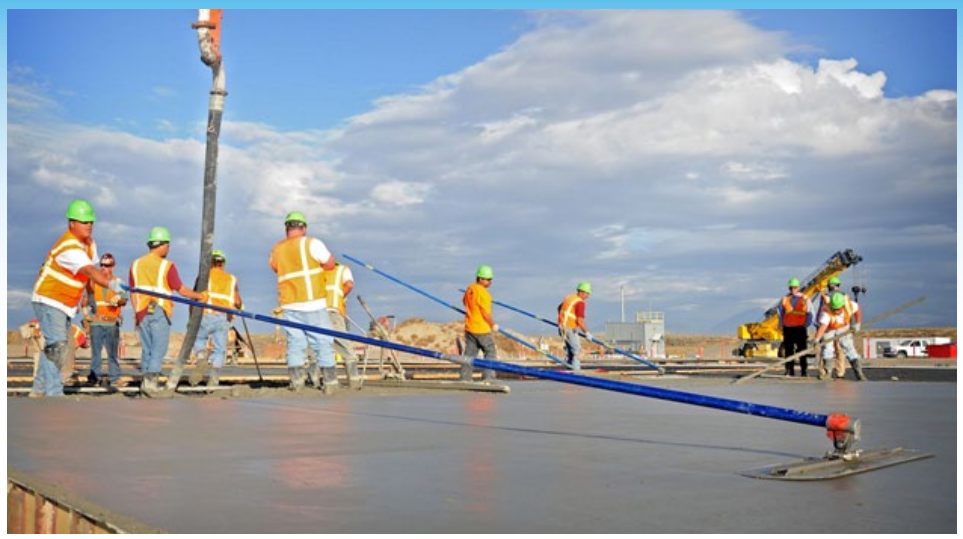
- Construction is finished on a new trailer complex at Hanford's AW Farm providing office space for more than 80 tank farm workers. The new, energy-efficient complex includes offices, restrooms, a large lunchroom, showers and lockers. "These facilities provide updated accommodations for our workforce and will help support long-term tank farm work for the duration of our mission," said Project Manager Mike Renfroe.

- Recovery Act-funded work to design and build a core sampling platform to replace existing sampling systems is quickly drawing to a close. The platform will replace 30 year old, and often unreliable, core sampling trucks being used in the tank farms today. "This is a high-tech tool that will help us mitigate potential safety risks and determine how best to retrieve the waste from these tanks," said Project Manager Christopher Watson.

- An important Recovery Act milestone was achieved recently when engineers completed the design of an in-tank mixer pump that will be used to mix the waste stored in the double-shell tanks before being transferred to the WTP.

- As part of the Recovery Act investment in upgrading tank farm infrastructure, a 20 year old control platform used in the tank farms has been replaced by a new state-of-the-art monitoring and control system. "We took a 20 year leap in technology by replacing an old system that was monitored with clipboards and obsolete computers that are no longer supported by the manufacturer," said System Engineer Manager Mirwaise Aurah. "We solved a major maintenance headache. We will see significant cost savings. We took another step forward in our strategic plan to support integration with the WTP." □

Recovery Act Accelerates Cleanup in Idaho, Reduces Cold War Footprint



IDAHO FALLS, Idaho – The Recovery Act investment in the Idaho Cleanup Project (ICP) has accelerated the cleanup of Cold War radiological and chemical wastes, saved and created jobs, and helped protect the Snake River Plain Aquifer.

The ICP is managed by CH2M-WG Idaho (CWI), the Idaho site's main cleanup contractor. The project is supported by $422 million of the $468 million the Idaho site received from the Recovery Act. That total funding is enabling accelerated decontamination and decommissioning (D&D) of contaminated and excess structures and facilities, buried waste exhumation, and remote-handled transuranic (RH-TRU) waste disposition.

At the ICP, CWI completed 90 percent of its Recovery Act work through August 2011, including:

- Reducing the Cold War footprint by 723,859 square feet;
- Demolishing 81 of 89 structures and facilities;
- Receiving 160 of 160 containers of RH-TRU for processing;
- Processing 118 of 150 containers of RH-TRU;
- Retrieving 1.76 acres of buried waste, exceeding a goal of 1.16 acres; and
- Dispositioning 47.41 of 47.41 cubic meters of Advanced Mixed Waste Treatment Project low-level and mixed low-level waste.

Nearly $200 million from the Recovery Act funded the D&D of excess facilities and structures. Crews demolished a wide range of structures, from excess storage sheds to contaminated laboratories. In late July 2011, they demolished a spent nuclear fuel reprocessing center where more than $1 billion of uranium had been recovered. The structures were among the first built at the Idaho site in the 1950s. In May 2011, the 1.2 million pound roof of the building that once housed the Materials Test Reactor was removed in a controlled explosion.

The buried waste retrieval effort, known as the Accelerated Retrieval Project, was allocated $108 million from the Recovery Act to retrieve, identify and repackage TRU for future shipment. Workers also constructed a specially designed retrieval enclosure that withstands sunlight, snow, and wind, and operates under a negative pressure to contain airborne contaminants.

Efficiencies and rapid progress in the buried waste retrieval effort freed an additional $12 million for the exhumation of buried waste from a half-acre portion of Pit 9, a 1960s landfill.

With $114 million in Recovery Act funding, the waste management team reactivated a hot cell that had been inactive for almost 20 years at the Idaho Nuclear Technology and Engineering Center. The reactivated hot cell was used to process and ready RH-TRU for shipment to the Waste Isolation Pilot Plant (WIPP) in New Mexico for permanent disposal. As of August 2011, 44 of 88 shipments to WIPP had been completed.

Processing and shipping RH-TRU waste to WIPP was a key part of the Idaho Site's Recovery Act work and in keeping commitments with the state. □

Top Photo: Workers prepare the footings of a retrieval enclosure.

Bottom left photo: A worker uses remote manipulators to repackage waste inside the reactivated CPP-666 hot cell.

Bottom right photo: The demolition of CPP-601, a facility once part of the Fuel Reprocessing Center at the Idaho Nuclear Technology and Engineering Center, was funded by the Recovery Act.

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:

EMRecoveryActProgram@em.doe.gov

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