



2014 Annual Review

Continuing to build on our investment-worthy brand



UCOR
URS | CH2M
Oak Ridge LLC



Transite removal from the
K-31 Building

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*Converter removal from
the K-27 Building*



K-27 Building

Message from the President

We made tremendous progress in 2014 in carrying out the Department of Energy's environmental cleanup mission in Oak Ridge while setting the stage for our company's future growth and success.

The defining highlight of 2014 was removal of the last debris from demolition of the historic K-25 gaseous diffusion plant, signaling an end to the largest demolition project ever undertaken in the DOE complex. Our team, including our labor partners, successfully and safely completed the K-25 cleanup project \$225 million under the federal baseline and six months ahead of schedule.

In the fall, we started teardown of the neighboring K-31 Building and continued deactivation of K-27, which will be the last gaseous diffusion building demolished and cleaned up in the Oak Ridge uranium enrichment complex under UCOR's Vision 2016 (Oak Ridge Gaseous Diffusion Plant Facilities Cleanup).

Even as this work is finished, we continue to plan and work toward our Vision 2020 when the remainder of the East Tennessee Technology Park (ETTP), including Poplar Creek and Balance of Plant, will be cleaned up and reindustrialized. In this phase, commemorative structures will also be constructed as part of the National Historic Preservation Project.

Looking beyond ETTP, Vision 2024 expands UCOR's potential cleanup activities to high-priority, critical Y-12 National Security Complex and Oak Ridge National Laboratory challenges, including mercury and central campus cleanup. In this phase, UCOR will work on behalf of DOE to lead the design, engineering, and construction management of Outfall 200 and a proposed new on-site Environmental Management Disposal Facility.

2014 was a year of dramatic change as cleanup progress could be seen across the Oak Ridge Reservation. In addition to more than 400,000 cubic yards of K-25 waste, we disposed of more than 3,500 cubic meters of legacy waste from other locations, consisting of large transformers, shielding, waste containers, and low-level radioactive waste. We also implemented waste storage plans for the Molten Salt Reactor Experiment and began conceptual design for a new Mercury Treatment Facility to reduce the release of mercury from Outfall 200 into Upper East Fork Poplar Creek.

All of this work was performed with our signature commitment to safety, which has characterized UCOR's tenure as the prime cleanup contractor at Oak Ridge. Our team of more than 1,400 employees recorded more than two million hours without a lost-time injury, being recognized by the National Safety Council for this significant achievement. We are also working toward Star status certification under DOE's Voluntary Protection Program (VPP), an honor awarded to the safest sites across the nation.

Reindustrialization—the ultimate goal of the DOE cleanup mission at ETTP—advanced during the year as two more remediated land parcels totaling more than 28 acres were transferred to the Community Reuse Organization of East Tennessee. This local economic development organization will now pursue additional commercial clients for this centrally located industrial area of the site.

Finally, during the year we took steps to position our company for enhanced operations and new opportunities. We enacted a new enterprise approach that lays the groundwork for future growth and positions UCOR to build on its investment-worthy brand.



A stylized, handwritten signature in black ink, appearing to read 'Ken Rueter'.

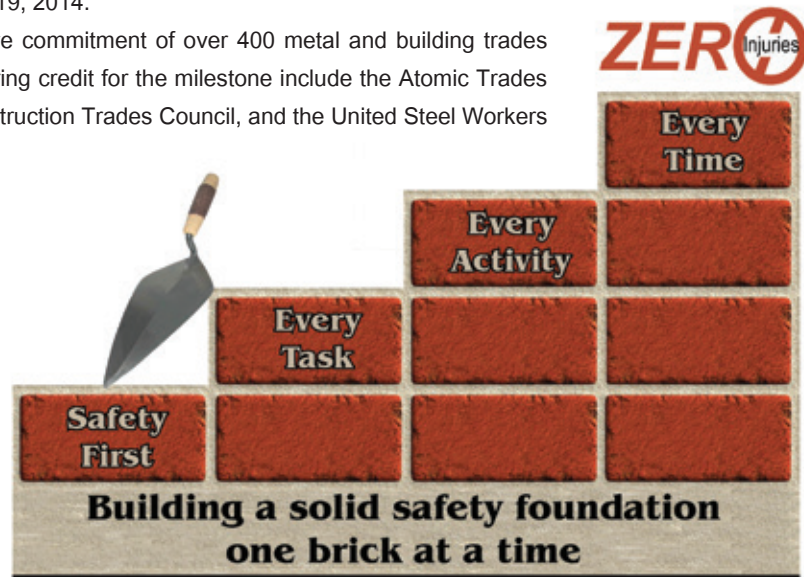
Ken Rueter
President and Project Manager

UCOR achieves safety milestone

The UCOR team achieved a significant safety milestone in October, completing over two million hours without a lost-time injury for the period of January 1, 2014, through October 19, 2014.

This safety milestone represents the collective commitment of over 400 metal and building trades craft in the field daily. Supporting labor unions sharing credit for the milestone include the Atomic Trades and Labor Council, the Knoxville Building and Construction Trades Council, and the United Steel Workers International Union Local 9-288.

"The commitment to safety on the part of every UCOR employee is gratifying and will go a long way toward ensuring that we successfully achieve our vision over the next several years," said UCOR President and Project Manager Ken Rueter. "That vision includes safely delivering on our commitment to DOE and Congress that we are investment-worthy as one of the best performing cleanup contractors in the DOE complex."



Safety observation program identifies at-risk behavior

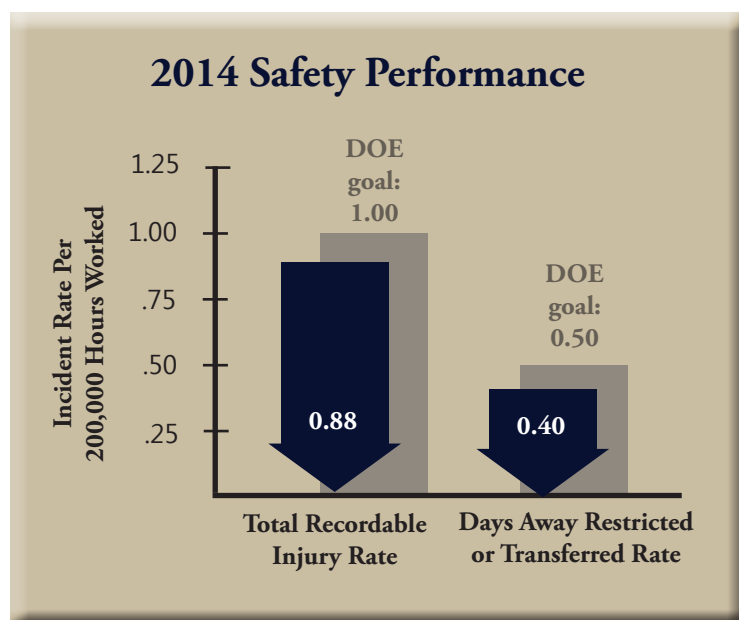
The purpose of the UCOR Safety Observation Program is to proactively prevent injuries and illnesses through the identification and correction of at-risk behaviors and work area conditions that could pose a risk to the safety and health of people and/or the environment. Safety observations also provide positive reinforcement of safe behaviors and open dialogue between employees, supervision, and management. Safety observation cards are scanned with the use of Scantron scanning equipment and software that creates observation data reports. Data and reports generated from observations are analyzed and acted upon by UCOR Local Safety Improvement Teams (LSITs) that are comprised of a cross-functional representation of employees.

UCOR LSITs and the Safety Observation Program experienced a year of growth and refinement during CY 2014. Four new LSIT teams became active during this period, bringing the total number of LSITs to six. An office safety observation program was developed for administrative, professional, and technical personnel.

More safety trained supervisors certified

UCOR held its third annual Safety Trained Supervisor (STS) achievement event on Dec. 10 where fifty additional STSs were recognized. UCOR currently has 161 STSs. The STS certification is offered by the Board of Certified Safety Professionals (BCSP). BCSP is a recognized leader in high-quality credentialing for safety, health, and environmental practitioners since 1969.

The STS certification provides a means for employers to verify safety and health knowledge of first-line supervisors, managers, and any other person with safety responsibilities. The program requires applicants to meet minimum education and experience requirements and demonstrate knowledge of basic safety and health standards and practices through a rigorous examination process. Companies that employ STSs generally experience a decrease in accidents/incidents/injuries, a greater participation in safety programs, and improvements in productivity and quality.



UCOR prepares for VPP certification

The DOE Office of Health, Safety and Security confirmed in 2014 that UCOR would move on to the next step in the Voluntary Protection Program (VPP) certification process—an on-site evaluation to be conducted in 2015.

DOE VPP is designed to recognize outstanding injury and illness prevention programs that have been successful in garnering employee involvement and reducing workplace hazards. Implementation of the VPP tenets establishes a cooperative relationship among DOE, contractor management, and employees that ultimately enhances the safety culture.

Many steps were taken in 2014 to prepare for the on-site evaluation, including employee involvement, awareness, and education opportunities as well as housekeeping and other cleanup measures. Specific measures include:

- performing a VPP gap analysis to identify strengths and weaknesses in our ability to demonstrate VPP proficiency
- conducting a VPP communications campaign, which included developing a train theme and logo to get all employees “on board”
- conducting housekeeping and cleanup campaigns
- encouraging employees to complete and post personal safety action plans
- establishing VPP attainment teams



Emergency exercises held

UCOR conducted two emergency exercises in 2014—one announced and another unannounced. The announced exercise, held in May, tested the site's ability to deal with an active shooter incident. More than 250 employees, Oak Ridge city personnel, DOE personnel, and others actively participated.

In November, UCOR conducted a different type of exercise—the first-ever no-notice exercise. The point of this exercise was to see how employees would perform without knowing about the exercise in advance. The exercise was successful, according to Exercise Director Jerry Foster.

He said this unique opportunity provided valuable feedback on both strengths, such as a solid accountability program, and areas where improvements are needed.



Mock active shooter exercise

Questioning attitude program implemented

To ensure employees maintain a questioning attitude about work safety, UCOR has implemented the Questioning Attitude Recognition Program.

The program is designed to encourage people to question practices or conditions that may be unsafe, as well as identify non-safety-related continuous improvements. Issues submitted through this program are discussed at the Monthly President's Accident Prevention Council Meeting, and monthly winners are honored at the Council Meeting and receive a token of appreciation. The best of the best are invited to a quarterly lunch with the president.

K-25 project wraps up early

The last load of K-25 demolition debris left East Tennessee Technology Park (ETTP) on June 24, 2014, wrapping up the historic project ahead of schedule and under budget.

The K-25 Building was built in the 1940s as part of the Manhattan Project and continued enriching uranium for defense and commercial purposes until shut down in 1964. Because it was contaminated with radioactive materials and was in a deteriorated state, its demolition was a high priority for DOE.

Per UCOR's contract with DOE, the on-time project completion date was set as Jan. 5, 2015, with an early milestone date of July 1, 2014. UCOR completed the work \$225 million under the federal baseline budget and six months ahead of schedule.

In addition to debris removal, other tasks had to be accomplished before the project could be deemed completed. Those tasks included terminating underground utilities, removing all ancillary support facilities, removing the remaining retaining walls, and dispositioning the inventory in the segmentation shop (where uranium deposits were mined from removed components to meet Department of Transportation shipping limits and waste repository acceptance criteria). In addition, DOE and UCOR had to address several difficult-to-dispose-of waste streams stored around the K-25 facility. Completion of the K-25 project marks an end to the largest building demolition project ever undertaken in the DOE Complex.



K-25 Building when UCOR took over (above) and after demolition



Last load of waste leaving ETTP



K-31 Building demolition under way

Demolition of the K-31 Building began in October 2014, marking the removal of the fourth of five gaseous diffusion buildings at the former uranium enrichment site.

The two-story building covers 750,000 square feet and spans a 17-acre footprint. The K-31 facility began operations in 1951, and it was used to enrich uranium for defense and commercial purposes until it was shut down in 1985. In 2005, EM removed most of the hazardous materials from the building's interior.

UCOR prepared it for demolition by conducting asbestos abatement, removing the facility's exterior transite paneling, disconnecting the building's power sources, and completing pollution prevention efforts, such as filling interior and exterior storm drains.

DOE EM and UCOR worked together to accelerate K-31's demolition five months ahead of its original proposed baseline

schedule. The early start, enabled by the savings achieved on the K-25 demolition project, was achieved through EM's oversight and the hard work and safety focus of UCOR's skilled workforce, supporting subcontractors, and labor partners.



K-27 demolition prep work continues



Workers remove process piping in the K-27 Building

UCOR continued pre-demolition work in the K-27 Building, which will be the last remaining gaseous diffusion building at ETTP once K-31 demolition is completed. The building is one of EM's highest priorities at the site due to its risk and severely deteriorated state. The K-27 Building is similar in structure to the already-demolished K-25 Building. It is approximately 900 feet long, 400 feet wide, and 58 feet in height, occupying approximately 9 acres of land.

UCOR has completed inventory management and nondestructive assay measurements; characterized process equipment; performed vent, purge, and drain operations on process equipment; and prepared necessary regulatory documents.

Demolition of K-27 will mark the first ever complete gaseous diffusion facilities cleanup in the world.



UCOR disposes of legacy waste

UCOR disposed of 3,578 cubic meters—or more than 500 truckloads—of legacy waste in 2014. The volume is enough to cover a basketball court 30 feet deep. This impressive record of performance reflected heightened efficiencies, schedule optimization, and innovation in waste management operations, which allowed UCOR to realize \$26 million in savings compared to the original cost plan.

The waste consisted of large transformers, shielding, and waste containers that were emptied and reused for various individual items of low-level radioactive waste. The waste came primarily from ETPP, Oak Ridge National Laboratory, and the Fernald site in Ohio. Most of it was disposed in the Oak Ridge Reservation Landfill and the Nevada Nuclear Security Site.

DOE's goal is to effectively manage waste from identification through disposal so that the waste does not require on-site storage. Prior to beginning waste generation activities, EM and its cleanup contractors identify a disposition path, and together they make plans to dispose of the waste efficiently and effectively. Legacy waste is managed and disposed on a timetable that is consistent with regulatory requirements, programmatic priorities, and funding availability.

Legacy waste is actively managed by tracking, labeling, and performing routine inspections. Legacy waste is prioritized for disposal based on its risk or an economy of scale associated with volumes, and it is disposed as funding is made available.



More than 60 rusty, empty metal storage containers that once dotted the ETPP landscape have been removed



Old equipment being loaded for disposal



Roof repairs to the 9201-4 Building, also known as Alpha 4, were completed in 2014. UCOR, working with the Y-12 Project Management and Construction organizations and contractors from the National Nuclear Security Administration's (NNSA) Roof Asset Management Program, conducted the project. The project included repairs to large areas of the nearly four-acre roof footprint.

While roof work may seem like a basic task, it requires the extensive use of hazard controls including personal fall restraint/arrest systems, fall protection carts, and warning lines to ensure worker safety.

This work was completed as part of EM's ongoing Surveillance and Maintenance Program to ensure the building remains in a safe condition. The project is expected to extend Alpha 4's roof life by 7-10 years, and it also decreases the cost of demolition by eliminating safety issues within the building.

TRU wastes shipped

UCOR's Waste Disposition organization continued to safely store and ship transuranic (TRU) waste that has been waiting eventual repackaging and shipment at ORNL. The UCOR team has vented, sampled, and shipped about 1,000 contact-handled containers and has prepared and shipped 180 remote-handled concrete casks to the Transuranic Waste Processing Center. Eventually, this material will be shipped to the Waste Isolation Pilot Plant in New Mexico for permanent disposal.

ORNL Highlights

- UCOR's ORNL Surveillance and Maintenance team completed one of the final steps to ensuring the safety of Building 3038 Alpha Handling Facility, which contains five inactive hot cells. Using a fogging process, the team applied a fixative to the internal surfaces to encapsulate the radioactive contamination. This fixative minimizes long-term surveillance and maintenance costs for the building.
- UCOR has an established contract with the Separations Process Research Unit (SPRU) site in New York to receive and treat wastewater at the ORNL Liquid and Gaseous Waste Operations facilities. The net revenue from this activity is being used to dispose of legacy waste from ORNL in agreement with DOE and TDEC. Since initiating this effort in 2012, UCOR has received and treated 436,500 gallons of wastewater from SPRU, generating \$618,000 of revenue.

Case study in project cost savings

Shipping in reusable containers saves millions

The use of specially designed, reusable containers is yet another way UCOR is saving taxpayer dollars.

When shipping Tc-99-contaminated K-25 compressor parts to the Nevada National Security Site, the K-25 Project explored cost-effective options for packaging these waste. They decided to design and fabricate reusable containers, which resulted in significant cost savings for the K-25 Project and will continue avoiding costs for future work in which they are used. An upcoming project that will use these containers is the K-27 project, which is also expected to have compressors that must be shipped offsite. UCOR representatives

traveled to Nevada to witness the off-loading process and verified that the volutes were unloaded without damaging the containers. The costs savings for using these containers was \$1.1M; another \$1.25M in costs is expected to be avoided for the K-27 project. Intangible savings included eliminating safety hazards associated with size-reducing the volutes using hand-powered tools.



UCOR reaches the \$1 billion mark for work successfully completed

2014 Performance

(\$1,000)

	UCOR's 2014 Performance	Contract to date
Budgeted cost of work scheduled	\$289,500	\$999,196
Budgeted cost of work performed	289,094	1,020,300
Actual cost of work performed	247,063	914,621
Schedule variance	-406	21,104
Cost variance	42,031	105,679

2014 Cost Performance Index

1.17

Contract to date: 1.12, \$106M favorable

2014 Schedule Performance Index

1.00

Contract to date: 1.02, \$21M favorable

The cost performance index (CPI) is the measure of the efficiency of expenses spent. CPI is equal to budgeted cost divided by actual cost. A value higher than one indicates a favorable condition, while a value under one would be considered unfavorable.

The schedule performance index (SPI) is the measure of schedule efficiency. It is predictive of whether a project will finish ahead of schedule, on time, or behind schedule. A value higher than one indicates ahead of schedule, while a value under one would be behind schedule.

Through the end of CY 2014 (41 months into the contract), UCOR has completed \$1,020M worth of work for \$915M and is two percent ahead of schedule.





UCOR continues strengthening union relations

Throughout 2014, UCOR management continued to strengthen its relationships with three unions that represent much of the UCOR workforce. The unions are the Knoxville Building and Construction Trades Council, the Atomic Trades and Labor Council (ATLC), and United Steel Workers (USW) Local 9-288.

In October, UCOR President and Project Manager Ken Rueter established a President's Forum whose membership includes each local union and council president and vice president. In its first meeting, the Forum focused on UCOR job performance and Vision 2020, which calls for completion of ETTP cleanup. Ideas were solicited from union leaders on ways to enhance ETTP cleanup and reindustrialization successes.

Dom Sansotta, UCOR Administrative Services Manager, and Len Morgan, Labor Relations Manager, joined union leaders at the Metal Trades Conference in Las Vegas. At the meeting, ATLC President Steve Jones provided his assessment of the working relationship between UCOR and his union.

"UCOR has been an excellent partner," Jones said. "Our working relationship is one of openness and honesty. We have worked through numerous complex issues with few grievances. We were able to do a full blown contract negotiation in about two weeks. We appreciate the UCOR team and look forward to working with them."

Two senior advisors to Energy Secretary Ernest Moniz – Natasha Campbell and David Foster – visited Oak Ridge in November. During their visit, Dennis Pennington, USW Local 9-288 president, said his union is working closely with UCOR to create a work environment where safety is the top priority.

UCOR continues to move toward Vision 2020 working in concert with its labor partners to share similar values, achieve common goals, and maintain open, two-way communications.

Other significant labor-management activities during the year, included:

- **Monthly President's meeting with union stewards and safety advocates.** UCOR President and senior staff met with the unions and work to resolve issues.
- **Monthly Union Management Administrative Committee meeting.** This meeting is with the Knoxville Building and

Construction Trades Council, union affiliates, and signatory contractors.

- **Oak Ridge Labor Management Prayer Breakfast.** UCOR continues to be a senior sponsor of this event, a celebration of labor and management working together.
- **2nd Annual UCOR/USW Charity Golf Tournament supporting St. Jude's Children's Hospital.** With 36 teams participating, this year's tournament at the Oak Ridge Country Club allowed UCOR and the United Steel Workers to donate \$10,000 to St. Jude's Children's Hospital. This amount is double the contribution provided in the first year.
- **27th Annual Tennessee Labor Management Foundation Conference, Nashville.** UCOR is a senior sponsor for this event. Thirteen management and union representatives attended.



Teaming for success

To foster continued teamwork to complete cleanup work safely, under budget, and ahead of schedule, UCOR and DOE signed a partnering agreement in 2014 that lays the framework for future collaboration, building upon the partnering agreement that successfully delivered the K-25 project completion. Pictured above at the signing ceremony are Ken Rueter, UCOR President and Project Manager, and Sue Cange, Acting Manager for DOE's Office of Environmental Management.

UCOR works to improve local community

Through donations, volunteerism, and community leadership, UCOR helped to improve the local community in 2014.

UCOR donated almost \$300,000 to local charitable agencies and educational institutions. One of those donations, a \$14,000 contribution to Second Harvest Food Bank, was made on Double Your Donation Day, so a group of corporate and private donors matched all donations that day, making the UCOR contribution worth \$28,000. "That is enough for 84,000 meals," according to Elaine Streno, Second Harvest Executive Director. UCOR's Wellness Committee also collected 540 jars of peanut butter as part of a Second Harvest food drive.

UCOR is committed to strengthening education, especially in the science and math fields, and that commitment was evident in its mini-grants program, which provided funding to local schools for science, technology, engineering, and math projects.

UCOR awarded mini-grants to 33 schools in Anderson, Knox, Loudon, Morgan, and Roane counties.

Other agencies that benefited from UCOR's corporate giving program include:

- Boys and Girls Club (Anderson and Roane counties), which received \$5,000
- The University of Tennessee, which received a \$50,000 installment payment for a UCOR faculty fellow in the College of Engineering
- Secret City Festival, in which UCOR was a stage sponsor for \$15,000
- Oak Ridge Art Center, which received a \$3,000 installment on UCOR's \$15,000 commitment to replace the facility's lighting fixtures
- UCOR Oak Ridge Velo Classic Bicycle Race, which received \$2,500
- Emory Valley Center, which received \$10,000

In addition to these and several other donations, UCOR conducted a United Way campaign, raising more than \$100,000 from fund-raising events and pledges. The company also sponsored an Angel Tree Program that provided gifts to numerous needy children in the local area.

UCOR managers and employees also participated in various community boards and agencies, such as the Oak Ridge Public Schools Education Foundation; East Tennessee Economic Council; Energy, Technology and Environmental Business Association; Legacy Parks Foundation, Court-Appointed Special Advocates; United Way; Emory Valley Center; Boys and Girls Club; and Oak Ridge Recreation and Parks Advisory Board.



Second Harvest donation



Peanut butter drive



Angel Tree

K-25 Project receives Excellence Award

The successful demolition of a former gaseous diffusion facility has been honored by the American Nuclear Society (ANS). The ANS Decommissioning and Environmental Services Division selected the K-25 demolition project to receive its 2014 Project Excellence Award. The Project Excellence Award recognizes efforts and achievements on a specific project that has contributed to the advancement of any one or all of the fields of decontamination, decommissioning, or site reutilization. UCOR's D&D Project Manager, Steve Dahlgren, was one of several individuals involved in the project who was specifically recognized.



UCOR honored by Veterans Group

UCOR received the "Veteran Supporter Award" from the Tennessee Veterans Business Association at a special dinner held in early 2014 as part of its Fourth Annual Business and Education Showcase. The award is given each year to a company that supports veteran causes. The award was presented to UCOR by Brian Quinley, Chief Operations Officer for BES Technologies, a DOE protégé with Y-12 specializing in respirator cleaning and laundry services.



Matt Marston with award

UCOR named as Healthier Tennessee Workplace for 2014

UCOR has been named a Healthier Tennessee Workplace for 2014. Healthier Tennessee is a state-wide movement aimed at improving the overall health of Tennessee's citizens by focusing on more exercise, eating smarter, reduced tobacco usage, and other lifestyle improvements. The initiative is intended to benefit the workplace by contributing to reduced healthcare costs, lower absenteeism, and increased productivity.

"We've worked hard to show ourselves and Tennessee that we value the health of every UCOR employee," Susan Blackburn, UCOR Wellness Committee chairperson, said. "Our employees show their dedication to safety and the well-being of themselves and others every day."

Parcels transferred

UCOR assisted DOE in successfully completing the transfer of ED-11 and ED-12 to the Community Reuse Organization of East Tennessee (CROET) on May 12, 2014. The combined acreage of these two parcels is 28.3 acres and will allow CROET to pursue commercial clients for this centrally-located industrial area of the ETPP site. This flat parcel of land once housed a machine shop and other support facilities, but has since undergone environmental cleanup and been approved for reuse by the Environmental Protection Agency and The Tennessee Department of Environment and Conservation. With this successful property transfer, DOE has transferred a total of 721 acres to CROET for reuse, which increases potential economic development in the local community. These transfers also reduce maintenance costs for DOE, which frees up additional money for environmental cleanup.



U.S. Rep. Chuck Fleischmann, R-Tenn.; Mark Whitney, DOE; Lawrence Young, president and CEO of CROET; and David Klaus, DOE's Deputy Undersecretary for Management and Performance, attend the signing ceremony for the transfer of ED-11 and ED-12 from DOE to CROET.



Gov. Haslam visits

Tennessee Gov. Bill Haslam visited ETPP in 2014 to view the cleanup progress and witness how that progress is preparing the site for further reindustrialization.

About our company

URS | CH2M Oak Ridge LLC (UCOR) combines the capabilities of AECOM, a worldwide leader in engineering, and CH2M HILL, the United States' largest environmental company. Along with our team subcontractor, Restoration Services Inc., we are committed to the long-term cleanup success at the DOE Oak Ridge Reservation. We have cleaned up some of the most complex and challenging nuclear facilities in the United States at DOE sites such as Rocky Flats, Colorado; the Savannah River Site, South Carolina; the Mound Site, Ohio; and the Idaho Cleanup Project near Idaho Falls. Our team's worker safety programs, regulatory management process, and demolition and waste management techniques are proven and effective, applying two decades of lessons learned in safely razing and disposing of highly contaminated buildings and restoring the environment. We are using this experience to safely address the tough challenges associated with cleaning up ETPP and other DOE Oak Ridge Reservation sites.

Contract Performance: A Quick Look*

- ▶ \$105 million under budget (\$1,020 million in scope delivered for \$915 million)
- ▶ \$21 million worth of work ahead of schedule
- ▶ 77 percent of subcontracted work awarded to small businesses (\$398 million)
- ▶ 2.4 million square feet of a Category 2 nuclear facility demolished (K-25 Building)
- ▶ 516,960 square feet of other facilities demolished
- ▶ 272,958 cubic yards of nuclear waste safely disposed
- ▶ 36,327 truck loads of waste received at the Environmental Management Waste Management Facility, DOE's on-site disposal cell that is managed by UCOR

*through 2014

East Tennessee Technology Park



