Facility downgrades pave way for Recovery Act work

Downgrading of two longtime nuclear facilities comes just in time to facilitate American Recovery and Reinvestment Act (ARRA)-funded work. Removal of nuclear materials from Building 9204-4 (Beta 4) was completed in March, and removal from Building 9201-5 (Alpha 5) is on schedule. Nonnuclear status translates into easier access for further cleanup and eventual deactivation and demolition.

More than 3,000 items from Building 9204-4 and more than 2,470 items from Building 9201-5 have been safely shipped off-site for permanent disposal. That's a total of more than 434 metric tons. Shedding the nuclear facility status in the two buildings means a savings of $2.5 million annually just in surveillance and maintenance expenditures.

Funding associated with downgrading came from multiple sources, including the Nuclear Material Management Team, Directed Stockpile Work, Readiness in Technical Base and Facilities, and the Legacy Pool. Some of the organizations contributing to the removal efforts were Production; Facilities, Infrastructure and Services; Engineering; Quality; Projects; Environment, Safety and Health; and Waste Operations and Integrated Facilities Disposition Program (IFDP).

The ARRA-funded work to remove legacy material such as equipment, records, parts and tooling—essentially anything containerized and not nailed down—is already under way in 9204-4 and 9201-5. "Environmental Management's cleanup challenge is simpler and more cost effective because of downgrading these two facilities," said John Krueger, senior director, Waste Operations and IFDP. "Y-12 is reducing the risk to people and the environment by removing radiological and hazardous materials, and we are making good progress toward eliminating two buildings on our facility disposition list."
Video inspection of Y-12 sewers completed with Recovery Act funding

Video inspection of more than 15,600 linear feet of sewer system piping has been completed 2 months ahead of schedule with funding provided by the American Recovery and Reinvestment Act. Information obtained will help define the magnitude of a remediation project at Y-12’s West End Mercury Area (WEMA).

The WEMA Storm Sewer Remediation project is part of an effort to address mercury contamination in certain areas—former mercury-use buildings, the adjacent mercury-contaminated soils and the storm drains in the immediate vicinity—on the Y-12 site.

During the Cold War, Y-12 used a mercury-based lithium separation process to keep pace with the national security requirement for thermonuclear weapons. Around-the-clock production at Y-12 successfully produced a powerful stockpile of weapons and contributed to the economic ruin of the Soviet Union and the end of the Cold War. A byproduct of the lithium separation process, however, was mercury contamination.

This Recovery Act project will contribute to remediating the most significant pathway, storm sewers, by which remaining mercury contamination migrates to East Fork Poplar Creek.

As reported in the 2009 State of the Creek address (a yearly event informing employees and the community about the health of streams on the Oak Ridge Reservation), fish and other aquatic populations continue to improve. However, East Fork Poplar Creek still exceeds water quality criteria for mercury. Because methyl mercury concentrations in fish tissue remain above the U.S. Environmental Protection Agency standard, consumption of fish from East Fork Poplar Creek is still prohibited.

“We expect to make great strides in soil and stream remediation at Y-12,” David Lind, WEMA project manager, explained. “With this funding, we will reline or replace storm sewers and repair or replace catch basins as needed. And, we are providing a cleaner and a much improved storm drain system to mitigate mercury contamination and improve our environment.”

As part of the West End Mercury Area project, a Miller Pipeline Corp. employee prepares to video inspect a Y-12 sewer. Fulfilling a Recovery Act goal, Y-12 used a subcontractor for the video inspection work.
As of the end of July, 323 jobs have been saved or created at Y-12 through seven American Recovery and Reinvestment Act projects. Below are some additional numbers to help explain the scope of the projects.

- $267 million—Y-12’s initial Recovery Act funding
- $10 million—subcontract and procurement commitments through mid-July for Recovery Act work at Y-12
- 790,000+—total cubic feet of legacy material to be removed from Alpha 5 (Building 9201-5) and Beta 4 (Building 9204-4)
- 150,000—square footage of five buildings to be demolished with Recovery Act funding
- 15,600—linear feet of storm sewer system piping evaluated
- 1,728—estimated dump truck loads of material to be removed from Alpha 5
- 750+—B-25 boxes to be removed from the Old Salvage Yard
- 200+—boxcar-sized Sealand containers to be removed from the Old Salvage Yard
- 323—jobs saved or created at Y-12 with Recovery Act funding
- 93—percentage of small businesses supporting Recovery Act projects
- 54—companies providing products and services so far
- 18—milestones completed early or on schedule

Y-12 targets small businesses

Small businesses are realizing the intended benefits of the American Recovery and Reinvestment Act. Only 4 months into Y-12’s Recovery Act work, 92.7 percent of almost $10 million in contracts has been awarded to small businesses. This amount includes almost $5 million to small, disadvantaged businesses, $1.6 million to woman-owned businesses, about half a million each to historically underutilized business zone and veteran-owned businesses, and $76,000 to service-disabled veteran-owned businesses. This funding is part of the $755 million distributed by the U.S. Department of Energy’s Oak Ridge Office Environmental Management Recovery Act program.

“I am impressed with the small business breakdown that Y-12 has awarded to date with Recovery Act money,” said Jill Albaugh, Y-12 Site Office.

Tennessee businesses, including Strata-G of Knoxville, Navarro-GEM JV of Oak Ridge and Container Technologies Industries of Helenwood, are part of the small business effort for the Recovery Act work. Other small businesses are from elsewhere in the country, such as Cavanagh Services Group of Salt Lake City, Utah, and Innovative Waste Solutions of Las Vegas, Nev.

The rapid awarding of subcontract dollars was possible because Y-12 routinely spends about 50 percent of its subcontracting dollars with small businesses. In fact, Y-12 recently won two prestigious national awards for its small business contracting. “Having an ongoing program made it easier to get Recovery Act-funded work into the hands of small businesses,” said Y-12 Procurement’s Gloria Mencer.

Demolition update

Demolition preparations are well under way for five contaminated buildings—totaling more than 150,000 square feet—at Y-12. Building 9735 of Engineering Row and four buildings (9211, 9220, 9224 and 9769) in the Biology Complex will be demolished with American Recovery and Reinvestment Act funding.

According to Y-12 Recovery Act Demolition Projects Manager Jim Blair, the buildings are “starting to show their age. They’re becoming safety issues for the site.”

Performing the demolitions now allows Y-12 not only to reduce risks to workers and the environment but also to accelerate the site’s transformation plans. “The baseline had these 10 or 20 years out before they were going to come down,” Blair said.

Radiological surveys are ongoing for the facilities, and required preparatory documentation (such as utility isolation plans, structural assessments, waste management plans and health and safety plans) are being developed.
Y-12 is famous for its machining abilities, but the 2-foot-tall, 100-pound water tower models on display in Y-12’s History Center were made elsewhere. Ben Johnston turned the two aluminum models on his home manual lathe and mill, on his own time. Johnston works for Phoenix Fabricators and Erectors in Kentucky, the subtier subcontractor for the water tank project.

“I thought a showpiece like this would catch a lot of attention at national trade shows,” Johnston said. “I’m learning to be a machinist, so it was also good practice.”

Johnston worked nights and weekends for 2 months along with a mentor to make the models. He used two solid bars of 6160 aluminum, one 6 inches in diameter for the support shafts and the other 10 inches in diameter for the tank containers. One model shows the jack support stands, cables and access tube that was used to jack the east tank to the top of the concrete support shaft. The models are about 1/100 scale.

Eventually, Johnston hopes they will go to a museum, perhaps in an exhibit about America’s infrastructures or water systems.

Y-12’s massive new water tanks are 212 feet tall and each holds 2 million gallons. The east water tank was raised in early August and the west tank will be raised in October. Time-lapsed video of the raising event is available on YSource.

Vicky Marrow of Budgets has found a unique way to put her talents to good use and help the Volunteer Ministry Center (VMC) provide winter warmth and holiday gifts to those in need.

“I have been active in the Y-12 coat drives for the Volunteer Ministry Center and thought that toboggans would be a great addition,” Marrow said. “Earlier this year, I began knitting toboggans to put to good use the yarn that was passed down to me from my grandmother.”

At the start of yard sale season, Marrow finished her 12th toboggan and used almost all of her grandmother’s yarn. She can be found on weekends scouring yard sales for good deals on yarn.

“To my surprise, yarn is not as plentiful as I imagined,” said Marrow. “I am buying any yarn I see this season, as I know my supply will be gone by winter,” she said. Marrow has completed 28 toboggans in sizes from newborn to adult plus a few scarves in myriad colors.

The toboggans will be a welcome addition to the VMC Holiday Store, where the working poor and homeless can purchase holiday gifts with points accrued through community service work.

The VMC relies on volunteer donations each year to stock the store and provide presents for loved ones of those who would have no other way to give a gift.

Vicky Marrow hopes to have 50 toboggans finished by the November coat delivery to the Volunteer Ministry Center.
Apprentices see the future at Y-12

A nuclear renaissance may be under way, with plans to build new commercial nuclear plants across the Southeast. Skilled craft workers are already in short supply, and competition for them is strong. In addition, more than half of the craft workers at Y-12 could retire in the next few years.

That’s why last year Y-12 revived an apprenticeship program to recruit and train workers.

Y-12 advertised for applicants to the program for crafts including boilermakers, electricians, insulators, ironworkers/riggers, painters, pipefitters, air conditioning and refrigeration mechanics and welders. Brandy Ward and Lorenzo Woods applied after seeing the ads and are in the elite group of 50 chosen from more than 2,600 applicants.

Ward and Woods are apprentice ironworkers. They are assigned to a work crew, are union members and work full time. Ironworkers have a 3-year apprenticeship that includes on-the-job and classroom training. As if that weren’t enough, both also are enrolled in college classes.

Ward and Woods like to talk about the amazement they feel when they see a large piece of equipment and think that there’s no way it can be moved. It looks impossible, but then the process is explained. When everyone understands what to do, they all jump in and get it done through teamwork.

The job is challenging, they said, because it requires concentration and a lot of physical strength. Ward said a definite disadvantage to working outside is the ticks they find in the Old Salvage Yard, but even that doesn’t dim the enthusiasm they feel for the program.

Both Ward and Woods see the apprenticeship program as valuable to both their futures and to Y-12’s.

Keeping it clean

As an environmental officer (EO) for General Manufacturing, Stacy Jollay helps dispose of waste streams in accordance with federal, state, local and Y-12 site guidelines and coordinates efforts to prepare wastes for recycling or disposal.

Jollay explained her job this way: “We share Y-12’s environmental policy and encourage environmental conscientiousness. We encourage others to be mindful of the environment and the impact we have on it. We’re always reminding everyone to reduce, reuse and recycle whenever possible.”

Jollay enjoys working with others across the site. She said, “There are many types of waste streams at Y-12, and the fact that each must be handled differently keeps it interesting. Many times it takes several players from different specialties before we can actually get rid of some of our wastes. When it all finally comes together and the waste gets picked up and disposed correctly, it is rewarding.”

A challenge is getting the required people from areas where the site is short-handed. Also, knowing and remembering the rules for all of the various waste streams can be tricky.

Jollay knows her job is important. She realizes that protecting the environment is important “because I have children and I am concerned about the planet we will be leaving behind for them and their own children.”

Jollay and other EOs maintain compliance with environmental requirements and promote continuous improvement of Y-12’s environmental practices.
Y-12 Garage gets (and keeps) your motor running

Every month Y-12’s Garage staff repair about 130 vehicles and perform general maintenance on about 90. That keeps them busy. Even so, they’ve managed to improve their operations over the past year.

“We service everything from 18-wheelers to bicycles,” said Durand Carmany, Fleet Maintenance manager. Y-12’s fleet includes site-owned cars and trucks, forklifts, bulldozers, mobile cranes, dump trucks, fire trucks, lawn mowers and air compressors. “Basically, if it’s got an engine, we work on it.”

Recent improvements to Garage operations include supplementing staff qualifications with professional certifications, servicing vehicles more quickly, replacing older vehicles with newer ones and upgrading service equipment.

Nine of the Garage’s 15 staff members are now Automotive Service Excellence (ASE)-certified technicians. Obtaining ASE certification means that Y-12’s mechanics have knowledge and skills that meet nationally recognized standards.

To ensure that vehicles requiring oil changes, mechanical inspections and other annual preventive maintenance are serviced at a steady rate, the Garage sends appointment notices by office e-mail to vehicle custodians.

“Instead of having a bottleneck of 40 to 50 vehicles at the end of the month, we’ve now got two or three preventive maintenances scheduled per day,” explained Carmany. The Garage also provides while-you-wait services for flat tires and similar minor repairs.

As vehicles become too costly to repair or outlive their usefulness, they’re replaced with newer vehicles. Last year, 17 vehicles were replaced. “As our budget permits, we’re upgrading the fleet with newer, more reliable vehicles,” said Carmany.

Home sweet home

Imagine buying a two-bedroom home for $828.75. Dream on that it would cost only $184.50 to move it to your beautiful lot on Norris Lake. Add a few more dollars for construction and a concrete pad, and this summer retreat is yours for $1,257.97. Possible if it was still 1950, that is.

That is exactly what happened to the original home of Bob Presley, Y-12 retiree (and now a subcontractor in Engineering). Originally assembled in 1944 from three separate pieces, this 576-square-foot Type B-1 pre-fab flattop was located at 68 Outer Drive in Oak Ridge.

The one-story home with a living room, kitchen, two bedrooms, one bathroom (no tub—just a toilet, sink and metal shower stall) and storage closet was perfect for Presley and his parents.

Presley remembered “a water tank that burst around Christmas of 1949 and washed the pylons from under the Outer Drive home.” That forced his family to move to the Woodland Community. In early 1950, Thaddeus Fitzpatrick purchased the house at an auction and moved it to Tazewell, Tenn., where it remained as a summer retreat for 60 years.

Recently Fitzpatrick’s daughter, Isabelle Fitzpatrick Smith, and her husband donated Presley’s original home to the American Museum of Science and Energy in Oak Ridge in honor of her parents and sister Frances (who had also worked at Y-12 and K-25). The museum moved the home back to Oak Ridge and is restoring the home to a 1940s look.

Bob Presley stands in front of his childhood home, an original Oak Ridge B house being restored by the American Museum of Science and Energy. Inset: Presley’s home as it looked in the 1940s.
Business Services’ Bill Chappell, Export Compliance manager, has been selected to serve as the 2010 chair for the Export Compliance Coordinators Organization (ECCO). ECCO members are from nuclear weapons and science research laboratories across the complex concerned with complying with regulatory requirements and guarding national security regarding exports, imports, proliferation concerns and transfers of high-risk personal property.

A Babcock and Wilcox corporate assessment team identified 24 noteworthy practices in Y-12’s Integrated Safety Management (ISM) program. No significant ISM programmatic issues were found. The team evaluated the effectiveness of ISM in four operations. “We are pleased with the overall results,” said Paul Wasilko, ISM program manager. “It was good to receive feedback on the four areas assessed and on the American Recovery and Reinvestment Act work preparation.”

About 60 Y-12 managers, supervisors and bargaining unit employees attended the 22nd annual Tennessee Labor-Management Conference Aug. 12–14 in Nashville. “I believe we have an excellent working relationship with the Atomic Trades and Labor Council at Y-12,” said Steve Little, Facilities, Infrastructure and Services vice president. “This conference allows us to further strengthen our relationship and focus our efforts to ensure Y-12’s continued success.”

Y-12 Employees’ Society (YES) members can now take advantage of discounts and special offers from attractions nationwide. Some of the venues include Walt Disney World Resort, Universal Studios, Sea World, New York City shows and movie tickets. Visit the YES website (https://home1.y12.doe.gov/yes/tickets.php) for more information.

Almost 600 people took the recent Y-12 Employees’ Society (YES) online survey. The most used YES service is discounts (420 respondents), followed by tickets (272 respondents), events (100 respondents), travel (75 respondents) and sports (33 respondents).

The YES board received many positive comments about their contributions. “You’re doing a great job for so many people, and I know you’re all volunteers,” said one respondent. “Thank you for giving your time and energy to benefit the rest of us.”

Several comments were received about an online store. Lisa Harris, YES president, said, “We’re working to open a Y-12 store in New Hope with an online presence. Stay tuned as the details are worked out.”

Around Y-12...

### AUGUST

**47 years**
- Applied Technologies: Matthew J. O’Hara

**41 years**
- Depleted Uranium Production: David P. Bryant

**40 years**
- Environmental Compliance: Edward M. Ingram
- Facility Engineering: James A. Burgess and Loren E. Carey
- Radiological Control: Boyd T. Gose Jr. and Danny P. Rowan

**35 years**
- Procurement Operations: Nancy P. Shedden
- Production: James D. Antricon Jr., James A. Strickland and Randall B. Toney
- Technical Information Office: Adolphus King

**30 years**
- Engineering: Catherine F. Waitinas
- Environmental Compliance: Rosemary L. Smith
- EVMS and Services: James M. Lassiter
- Facilities, Infrastructure and Services: Allen R. Shockley and Glenda K. Turner
- Information Technology: Richard L. Shipp

**25 years**
- Applied Technologies: Mark W. Richey
- Benefits Service Center: Pamela R. Skinner
- Communications Services: Charles S. Strayer Jr.
- Engineering: John C. Hallquist

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**Environmental Compliance:** Kimberly G. Hanzelka
- Facilities, Infrastructure and Services: Mitchell E. Burnett

**Information Technology:** Sherrie W. Dowling
- Nuclear Materials Control and Accountability: Louise C. Adaline and Pamela C. Ray
- Performance Assurance: Carla M. Jones
- Program Planning: Erwin L. Epple
- Quality Assurance: Donna L. Beidleman, Clifton C. Hanzelka and Mary F. Thompson
- Radiological Control: Mavis M. Tillman

**20 years**
- Benefits Service Center: Terri L. Kellogg
- Document and Property Management: Juli G. Stewart
- Emergency Services: Frederick L. Winstead III
- Environment, Safety and Health: Samuel D. Easterling
- Environmental Compliance: Anthony L. Garland and Jeffrey T. Williams
- Facilities, Infrastructure and Services: Julia A. Bailey, Stoney D. Bolton and Jonathan H. Goodman
- Information Technology: Monica D. Love
- Occupational Health Services: Alice A. Hill
- Production: Virginia G. Owens
- Projects: Michelle H. Culp

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**In memoriam**

James R. Simpson III, a steam plant operator in Facilities, Infrastructure and Services, passed away July 31. He had 30 years of company service.

“Jim was a fine fellow, a conscientious worker and a strong family man,” said co-worker Marion Wampler, who worked with him for more than 20 years. “His whole life was his family. He was a good guy to know and will be sorely missed.”
A few years ago, Desert Storm veteran Mike Morren only hoped to own his own business. After learning from the first two East Tennessee Veterans’ Business Conferences, he now owns and operates Dents R Us auto body repair. “I never dreamed I’d be up here as a success so soon,” he told this year’s conference attendees.

Y-12 hosted the Aug. 4 conference at New Hope Center along with 28 sponsors and partners. About 350 attendees used the free event to learn more about how government agencies contract with service-disabled veteran and veteran-owned small businesses. The speakers included U.S. Rep. Lincoln Davis, who said he was honored to be in the presence of so many veterans.

Small business success stories were shared by several speakers, including Gulf War veteran Percy Hollins. He and his business partner turned their Alcoa Aluminum Company layoffs into a full-time focus on their side business, Elite-1 Transport. “We felt like it was us against the world when we started, but we were wrong,” said Hollins. “There are tons of resources, many right in this room.”

Vietnam veteran Patrick Clauss also encouraged the crowd. He said he has weathered economic storms for 30 years in his demolition and hazardous waste construction business. “Some of the bravest people in America are running small businesses in turbulent times,” he said. “They’re doing what made America great.”