*Heavy equipment not claimed by federal or local government agencies or programs was staged at the Fernald Site for the world's largest equipment auction.*

# Redistributing Fernald's Government Assets

**By Deborah Dunn**

The Fernald Site has been transformed from weapons to wetlands. It took 14 years to clean up, close, and rehabilitate the 1050-acre former nuclear weapons production site. Closure activities by the U.S. Department of Energy Fernald Closure Project and prime contractor Fluor Fernald included redistributing millions of dollars worth of equipment and materials, so that assets purchased with taxpayer dollars would continue providing value. Finding new uses for the property was accomplished within the framework of the existing DOE property system and included streamlining both internal and external processes.

"Fernald workers faced what many thought was impossible: cleaning up a highly radioactively contaminated Superfund site by 2006, about a decade sooner than early estimates, and doing it safely," said Johnny Reising, DOE Fernald Closure Project manager. "The opportunity to lead a project of this caliber is rare in anyone's career, personally and professionally. Redistributing the government assets to other federal projects and local communities is one of the satisfactions from our work because others across the country are continuing to benefit from the materials and equipment."

"Our experience in transferring assets can be advantageous to other DOE sites," said Con Murphy, Fluor Fernald's project director, now the president and chief executive officer of Fluor Hanford in Washington State. "We transferred government assets throughout the DOE complex and to our local communities for reuse. These activities fulfilled the obligation in our contract with DOE to

*Con Murphy (left), Fluor Fernald project director, and Johnny Reising, manager of the DOE's Fernald Closure Project, spearheaded closing the site. They issued a joint statement saying, "Fernald workers faced what many thought was impossible: clean up a highly radioactively contaminated Superfund site by 2006—about a decade sooner than early estimates—and do it safely. Our workforce has met these challenges and made closing Fernald a reality."*

Closure activities at the Fernald Closure Project included redistributing millions of dollars worth of equipment and materials so assets purchased with taxpayer dollars would continue providing value.

find beneficial uses for equipment and material once used at this closure site." Murphy said the process involved planning far in advance of Fernald's expected closure date and establishing a system that used a variety of routes to place the items. "The DOE deserves a lot of credit for facilitating these transfers," he said.

The massive environmental cleanup and restoration was completed in October 2006 and formally recognized January 19, 2007, in ceremonies that drew Secretary of Energy Samuel Bodman and other dignitaries to the former uranium-production site located 18 miles northwest of Cincinnati, Ohio (see "A Farewell at Fernald," *Radwaste Solutions,* May/June 2007, p. 26). The work at Fernald was finished more than a decade earlier than once thought possible and for billions of dollars less than projected. In 1992, a government report forecast completion in 2019 at a cost of $12.2 billion. Twelve years were carved off that schedule, and the final cleanup cost was posted at $4.4 billion.

Workers tore down and dug up almost everything built or buried at the site, razing hundreds of contaminated buildings, treating and disposing of more than 6 million tons of waste and contaminated dirt, and remediating the soil and groundwater. In the end, the harsh colors of uranium production were replaced with the soft hues of nature. Nearly 400 acres of woodlots, 327 acres of prairie, and more than 140 acres of open-water wetlands were developed to restore the land to an undeveloped park with an emphasis on wildlife and education. Today, the site carries a new name, The Fernald Preserve, and is run by the DOE's Office of Legacy Management.

### The Fernald Community Reuse Organization

In the 1990s, the DOE and Fluor learned the value of participation by the workers and the community. Based on the successful model of stakeholder involvement, they convened the Fernald Community Reuse Organization (FCRO) in 1996 to be the focal point for socio-economic issues affecting local communities. FCRO grappled with worker and community transition, economic development, and land and equipment reuse. In November 2004, FCRO narrowed its focus to the quick and economical disposition of property locally, playing an important role in benefiting nearby communities by reusing surplus government items from Fernald. One of FCRO's biggest challenges was assisting in directing the reuse of thousands of pieces of equipment by local community organizations before the Fernald Site officially closed.

The DOE, Fluor Fernald, and FCRO took seriously their roles as good stewards of taxpayer assets. Regulations require offering for set periods of time items valued at $5000 or more to potential users, each in turn: first came the DOE sites, then other federal agencies, followed by local governments, community programs, and the public. Items no longer needed at Fernald were declared "excess" and were dispositioned according to protocols governing excess government equipment. In all cases, determinations were made to assure that dispositions—either reuse or disposal—would proceed in a cost-effective manner. Fluor completed a cost/benefit analysis to compare the value of an asset to the costs of reutilizing it. Asset reutilization costs may include conducting a radiological survey of the item; decontaminating the item to meet criteria for free release; and storing, staging, and/or preparing it for shipment. Generally, in supporting the Fernald Site closure schedule, Fluor found that when considering these reutilization costs, it was beneficial for assets valued at less than $5000 to be offered to local communities through the FCRO. Recipients were responsible for shipping costs.

Communication proved vital in redistributing the property. The Fernald Personal Property department worked closely with the cleanup work groups to identify and place excess items in a screening program so other DOE and federal organizations could claim them within time limits set to support Fernald's closure date. Using the federal Energy Assets Disposal System, government agencies learned of capital equipment available from Fernald. Oth-

er items were distributed through the FCRO according to community wish lists. Up-front work with DOE, FCRO, and Fluor Fernald's legal department resulted in a standard, efficient process and packet of documents for transferring the property.


*Equipment from Fernald that was valued at more than $5000 was made available to potential new owners according to strict protocols governing excess government equipment. Most of this equipment was sold at what has been called "the largest equipment auction in the world," which drew more than 2500 participants to the Fernald Site in January 2007.*

### Changes and Challenges

The pace of change at Fernald quickened as closure loomed, taking a toll on the people working there. Emotions sometimes surfaced for the first time during the asset reutilization process, as experienced firsthand by John Lopez. Lopez was the property manager for Fluor Fernald. In his former role, Lopez was responsible for safeguarding government property and dispositioning all remaining property before the site closed.

Extensive dialogue with personnel managing the work projects was required to determine what equipment was necessary for completing closure activities and which items were simply "nice to have—just in case." Despite this concerted culling process, much of the equipment was used right up until the end.

"The biggest obstacle was in redeploying what we had," Lopez recalled. "It was challenging. We went to the workers saying, 'You don't need these tools or computers or pieces of equipment.' Some workers had been there for 20 or 30 years, and taking away their tools was when the reality hit: 'My job's going away. There is no longer a need.' It was very difficult. I never anticipated the human factor."

Lopez said most attempts to reutilize assets focused on other DOE sites. Communications were time-consuming, frequently involving followup to requests for photos and more detailed specifications.

"We dispositioned millions of dollars of property in a short period of time," Lopez said. "During the last three months, three tractor-trailer loads were leaving each day. Toward the end, we were moving quickly."

### Riding the Rails

*Gondola railcars and track, pictured at Fernald in 1999, have been redeployed with engines and miscellaneous rail equipment throughout the DOE complex, where they continue to provide beneficial use. Rail operations were considered Fernald's workhorse for sending large volumes of waste offsite safely and cost-effectively.*

Murphy said reusing Fernald's rail equipment is one of the best examples of providing value to the government. Fluor Fernald completed the largest continuous radioactive waste shipping campaign in the DOE's history in August 2006, when the 201st train of contaminated material headed for a disposal site in Utah. Before the rail program began in April 1999, tractor-trailers carried waste from Fernald to the Nevada Test Site. Shipping by rail safely moved more waste more quickly and at a substantial reduction in cost. One railcar holds about five times more than a tractor-trailer. When finished, 11 856 rail-


*Jeff Pappin, Fluor Hanford Radiation Protection, Soil and Groundwater Remediation Project, displays one of many radiation-detection instruments acquired by Hanford from Fernald. This "GeLi" detector can analyze a multichannel spectrum to identify radioactive isotopes.*

cars of waste had left Fernald—enough for a train 116 miles long.

Fernald's excess rail assets included 190 specially made gondola railcars with fiberglass covers, three locomotives obtained as excess from the U.S. Army, and 5.5 miles of track. The DOE's Savannah River Site in South Carolina will be reutilizing 50 of the gondola cars. Ninety of the gondola railcars have been transferred to the DOE sites in Portsmouth, Ohio, and Paducah, Kentucky, to support remediation of legacy stockpiles of depleted uranium stored as uranium hexafluoride ($UF_6$) in steel cylinders, and the remaining 50 gondola cars and one locomotive are being managed by the DOE Environmental Management Consolidated Business Center in Cincinnati for potential reuse within the DOE complex. Two locomotives were transferred to the uranium mill tailings remediation project in Moab, Utah, along with other rail equipment from Fernald, including 16 000 feet of track, associated switches, a specialized vehicle for moving railcars, and a shipping container full of spare locomotive parts—all of which is expected to save the Moab project more than $2 million.

"The rail disposition is a win-win for the DOE," Murphy said.

### Rad Tech Equipment

Railcars and track were not the only unique items redeployed from the Fernald Site. "We put quite a bit of effort into getting capital assets to other DOE sites," Murphy said. Specialized radiation-detection equipment for in-situ analysis of contaminated soil also fell into the "unique" category. This new technology was welcomed at the DOE's Hanford Site, which occupies 586 square miles of arid land in southeastern Washington State. About 20 square miles of ground at Hanford is of concern—workers remediating the soil there have a lot of ground to cover.

Steve Landsman, radiation control manager for Fluor Hanford's Soil and Groundwater Remediation Project, said the high-tech radiation-detection equipment valued at about $400 000 will allow large areas of surface soils to be monitored in real time for characterization and remediation. Characterization is the process of

*With Rattlesnake Mountain in the background, Curtis Eggemeyer is at the wheel of the "gator" near a 13-square-mile area slated for soil contamination monitoring and characterization. Eggemeyer is with Fluor Hanford Radiation Protection supporting the Soil and Groundwater Remediation Project. The diesel-powered all-terrain vehicle sports a cylindrical, white, high-tech radiation-detection device mounted in the front, a global positioning system unit on its roof (at left), and a computer inside the cab.*

obtaining and analyzing samples to detect the presence and concentration of contaminants. The equipment is mounted on an all-terrain vehicle. Soil can be monitored, surveyed, and mapped in the field."This system really expands our capability," Landsman said. "Before, we used handheld instruments. Now, we will be able to effectively survey large areas of contaminated ground. This transfer was really timely. We are focusing on remediation, and this provides us with the technology we need."

### Heavy Equipment

While many of the unique items were readily dispatched to other government projects, finding options for reutilizing potentially contaminated standard heavy equipment was more complicated. A significant amount of new construction equipment had been purchased for the cleanup of Fernald and was in reasonable-to-very-good condition but had become contaminated. There were three options for this equipment: careful packaging and shipping to another DOE site to use in contaminated areas, decontaminating to the strict standards for free release, or disposal. Some of the heavy equipment is being reused in similar projects at DOE sites in Idaho and Tennessee. Several contractors and subcontractors acquired equipment for their work on government projects in contaminated areas. Lopez said Fluor Fernald was fortunate to be able to dispatch some heavy equipment to a similar project managed by Bechtel Jacobs. Because it was going directly into another contamination area, safely packaging the equipment for transport was the only cost Fernald incurred. With the transfer of contaminated equipment, Fernald saved the expense of decontamination, while the receiving organization avoided the huge costs of purchasing new capital equipment.

### Surplus to Local Communities

Local distribution of surplus government items provided socio-economic benefits to nearby communities and is credited with improving Fernald's ability to transfer high-volume, low-dollar-value items, reducing both time and labor for Fernald workers.

Prior to the agreement with the FCRO, noncontaminated low-dollar-value items unclaimed by the DOE or other federal organizations were sold piecemeal to the public either through public auction or sealed bids. This often resulted in gross sales for pennies on the dollar. Usually, the income was insufficient to cover the cost and effort of holding the sale. As the volume of low-dollar-value items increased, local auction houses began rejecting requests for services. Another approach was necessary.

"We were shocked to hear reputable auctioneers tell us that we had too much of the same stuff and it was not worth their while to sell it for us, at any commission." said Kathy Reid, then Fluor Fernald property manager. "We had to look around the complex for other approaches that were consistent with the property regulations, yet met our needs." Reid said two important sources were tapped: a method for direct-distribution to the local communities and a sales outlet.

Taking a chapter from the Fluor Hanford playbook, an agreement was made at Fernald be-

***Above:*** *A fire truck from Fernald now provides fire protection to the rapidly growing population of Ross Township, Butler County, Ohio. Fire Chief Steve Miller admitted his first act on receiving the lime-green truck was repainting it the traditional red color preferred by his department. Miller, a longtime fire professional both for the township and formerly at Fernald, said, "DOE and Fluor deserve a lot of credit for transferring equipment to the local communities. It helped us out tremendously."*
***Right:*** *Fire service for Fernald-area communities Ross Township and the Village of Millville merged in 2005 and now operates from two stations. A tanker acquired from Fernald is housed at Station 1, playing a role in fulfilling the fire department's mission "to save lives, protect property, provide the best services possible to the community, and to treat people nice."*


*A marker at the new Fernald Preserve commemorates the leaders behind Fernald cleanup. Pictured with the inscribed rock are leaders of the DOE, the U.S. Environmental Protection Agency, Ohio, Fluor, labor, and local communities, gathered at the formal Fernald Farewell ceremony held earlier this year.*

tween the governing authority and the FCRO to allow foregoing the auction/bid process. Available items could be donated directly to community recipients, which included two local school districts, three townships, and many small businesses.

"One of the most satisfying aspects of transferring the assets was being able to donate a lot of property to schools and businesses," Lopez said. "Hundreds of computers, tools, and pieces of office furniture were offered in the communities surrounding Fernald." Local townships received fire trucks and mounds of salt to use on roads in winter. Fluor Fernald's Property Management organization posted a final tally of $3.6 million in equipment and supplies being reutilized locally. All equipment released through this process was confirmed to be free of radioactive contamination.

Fluor Fernald also used an existing DOE program at Oak Ridge, Tennessee, that is operated by a government contractor for disposing of scrap electronics, computers, and other excess government property. The contractor receives the property and either sells it on the open market or sends it to a salvage operation, recovering value as scrap. This contractor has the advantage of time, space, and holding multiple contracts for reusing the government property and thus could deal with the heavy volume of low-dollar-value items coming from Fernald. Using this venue was a key factor in Fluor Fernald's ability to disposition all remaining property from the project within 90 days after the official Declaration of Physical Completion, as required by Fluor Fernald's contract with the DOE.

"We went out of our way to be fair, reasonable, and appropriate in finding beneficial uses for government assets from Fernald," Murphy concluded.

## Finishing/Starting

Today, final paperwork is finished, closeout offices are closed, and the last office furniture has been relocated to other DOE sites. In communities near Fernald, senior centers, fire departments, schools, and many others benefit from much-needed equipment that is serving new purposes. The Fernald Preserve is entering its first turn of the seasons as another type of asset for the community. Plans call for the DOE's Office of Legacy Management to open the natural park this fall, followed by an education center.

"It is certainly a rewarding feeling when you look at the database containing a huge number of property items and see that so many of them have been sent to other places for reuse," said Teresa Brandenburg, the last Fluor Fernald property manager. ■

*Deborah Dunn works in communications for Fluor Hanford. She can be reached at Deborah_J_Dunn@rl.gov.*