4904

# fernald Report

**Inside**

- Safe cleanup by December '06
- 79 trains vs. 25,000 truckloads
- Congressman Chabot impressed by progress

**May/June** 2003

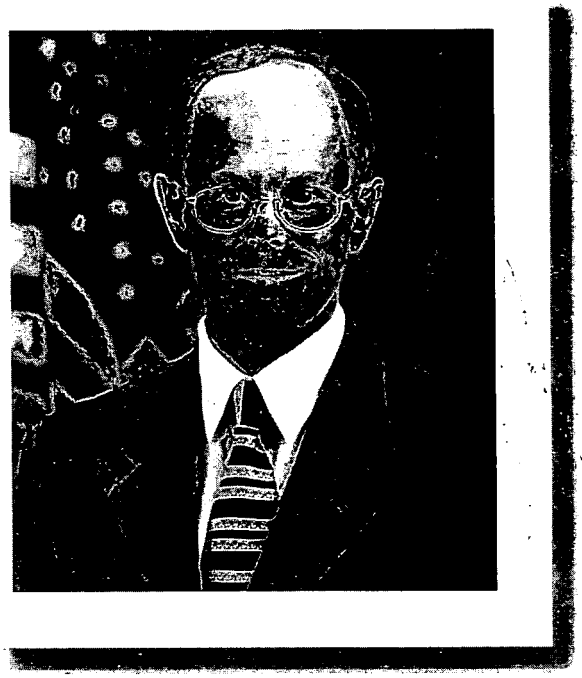
message from

# Steve McCracken

1e 4904

## Closure Contract Modification means more work - completed sooner

Recently Secretary of Energy Spencer Abraham and Assistant Secretary for Environmental Management Jessie Roberson challenged all sites to further accelerate risk reduction and speed closure by developing new Performance Management Plans. Subsequently, Fluor Fernald developed a new plan to reach closure by December 2006 with an increased funding each year to $324 million. As a result, on March 29, 2003, the Department of Energy and prime contractor Fluor Fernald modified the existing Closure Contract originally signed in November 2000.



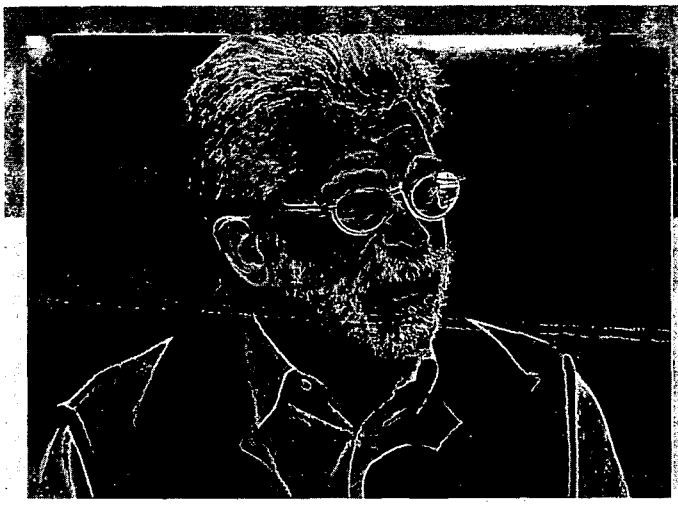
The new contract modification places greater emphasis on accelerating schedule. In addition to adjusting how fee is earned, DOE has increased the work scope necessary to reach project completion. In the original contract a number of ancillary structures remained in place after project closure. For example, some rail infrastructure was still needed along with small parking lots, storm water retention basins and the old water outfall line to the Great Miami River. That scope, along with some other restoration work has been added to the current contract. Fluor Fernald has agreed to incorporate this work into the accelerated schedule and to do so without a guarantee of receiving more than $324 million each year.

Overall this is a good deal for the DOE and taxpayers as Fluor Fernald will earn fee based on their ability to safely complete the cleanup on or ahead of schedule while controlling costs. I think Jamie Jameson and his Fluor Fernald team are strategically lined up to meet this goal.

Finally, this will be my last message as I have accepted a job to serve as deputy site manager overseeing environmental cleanup at Oak Ridge. While I look forward to returning home to Tennessee, I am disappointed to leave a site that's so close to the finish line. This is a good team with excellent workers in both the federal and contractor organizations and the stakeholders are the most dedicated that I've seen. It's remarkable what can get done when you have DOE, contractors, regulators and the community working together. Thank you for welcoming me and my family to Fernald. I will always feel like I'm at home when I'm in Cincinnati. I wish you all continued success as you take the final steps toward closure.

*Steve McCracken*
*Director, DOE-Fernald*

***On the cover:*** *Ohio once contained vast stretches of emergent and forested wetlands. However, in the past century, thousands of acres have been destroyed to make room for agriculture and development. Habitat loss is the single biggest threat to native plant and animals. Restoration activities at Fernald are aimed at establishing some of the components necessary for sustaining and expanding these native species (clockwise 6887-d366, 7321-d107, 6877-d277 and 7081-275).*



# Waste Pits Project ships half million tons

When Unit Train #79 left Fernald on March 12, 2003, it carried the 500,000th ton of material to be shipped to Envirocare of Utah. This was a major milestone for DOE, Fluor Fernald, Shaw Environmental, CSXT Railroad and Envirocare. "Since we've safely shipped 79 trains and disposed of a half million tons of contaminated material, we've made this the largest shipping program in the DOE complex," said Dave Lojek, DOE project manager. "That amount of material, if shipped by truck, would equate to over 25,000 truckloads."

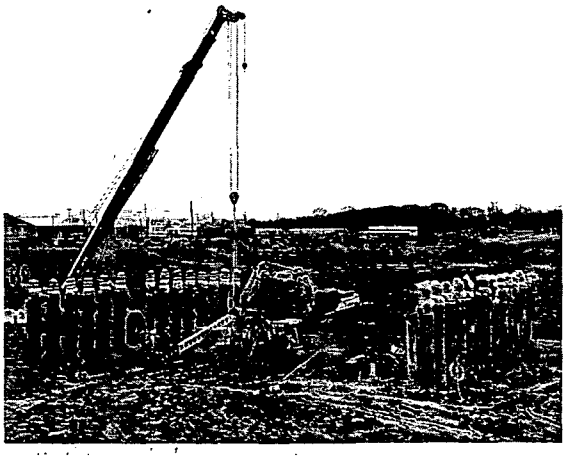
To recognize the team for this landmark occasion, on April 10, Fluor Fernald and Shaw Environmental treated over 200 team members to a catered meal and handed out shirts marking the event. Special guests at the ceremony included Bob Warther, DOE Ohio Field Office manager; Bob Fluor, vice president of corporate public affairs for Fluor; Tom Horst, executive vice president of Shaw Environmental and Infrastructure, Inc.; and Johnny Bowne, manager of Envirocare. They recognized each worker's individual effort and praised the entire team for making the project so successful.

*Above left: Tom Horst, Shaw Group executive vice president of corporate public affairs, speaks to the crowd and offers his congratulations on a job well done. Shaw Environmental (formerly IT Corporation) is the company hired to remediate the six waste pits (7957-d0004 and 7957-d0010).*

# Construction begins on the sixth cell at OSDF

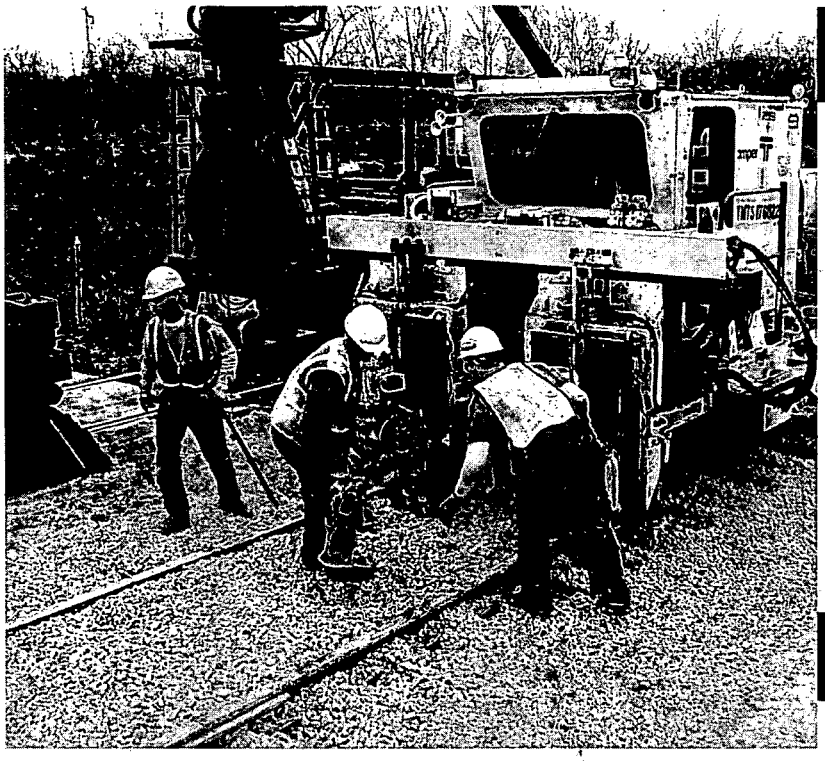
The 2003 construction season picked up speed in April with a flurry of activity at the On-Site Disposal Facility (OSDF). From all forecasts, this year will be the biggest for the Soil and Disposal Facility Project (SDFP). Two major tasks at the OSDF will be installing the final cover (cap) on Cell 2 and building the liner for Cell 6. The thickness of the cap will be 8.75 feet and the liner will be 5 feet. Material required for the cap and liner this year includes 60,500 tons of riprap, another 67,000 tons of other types of stone/rock and over 300,000 square yards of synthetic materials. Both tasks will be completed by the end of this calendar year.

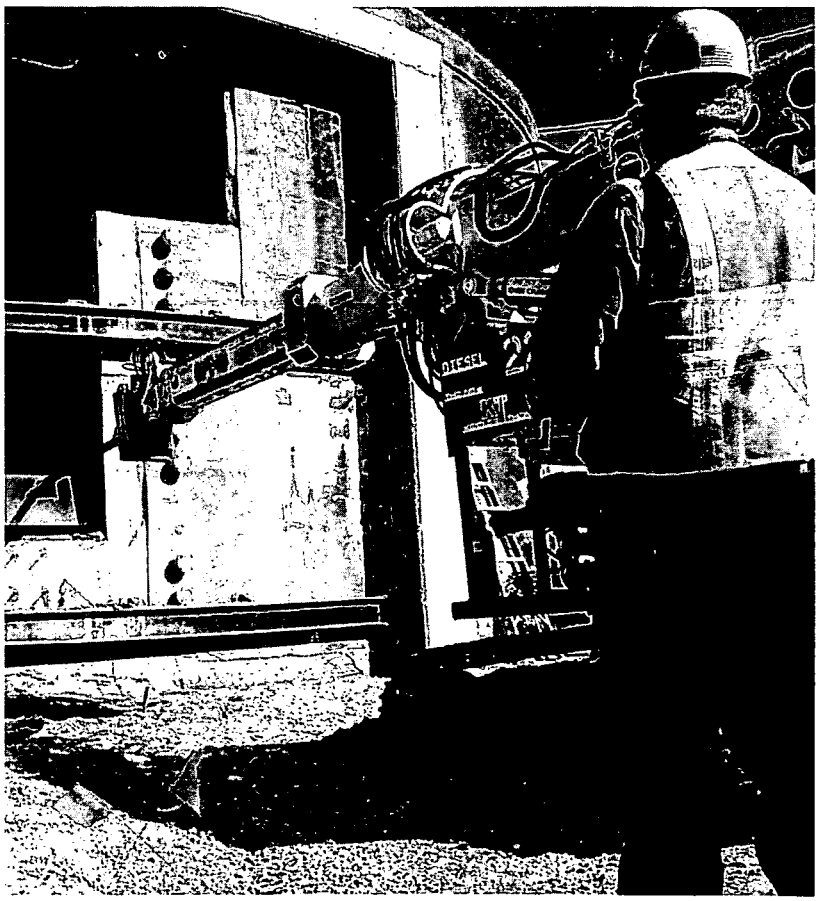
Currently, Cell 1 is filled and capped. Cell 3 is at 51 percent and will be completely filled this year, ready to cap in 2004. Cells 4 and 5 are at 9 percent and 5 percent, respectively. The SDFP group plans to excavate about 400,000 cubic yards of contaminated soil and debris from the former production area during 2003. Most of this material, along with the debris from the buildings, will be placed in the OSDF. "It's a very aggressive schedule," commented Rob Janke, DOE-Fernald OSDF project manager, "but I'm certain we can do it safely."



*Above: Twenty-eight huge concrete columns that contain hydraulic rams used during the production years in Plant 5 have been excavated and removed this past winter (7818-d176).*

# Cleanup **Progress** Update





## Waste Pits Remedial Action Project (WPRAP)

- Safely transported trains #79 - #82 to Envirocare of Utah during March/April timeframe bringing the total tonnage shipped to over 519,000 tons
- Excavations are ongoing in Pits, 3, 4, and 5
- Hauled and continued processing soil and debris not meeting the waste acceptance criteria for the On-Site Disposal Facility to waste pits for disposition
- Continued processing drums transferred from Waste Management
- Completed installation of 1,080 feet of track for the new rail spur
- Received 18 of the 35 additional railcars
- **Project 65 percent complete**

## Silos Projects

- Completed excavation and sheet piling for the Silos 1 and 2 bridge foundations
- Poured concrete for decking over the Transfer Tank Area
- Continued fabrication and testing of pump and sluicing modules
- Completed installation of roof, walls and trim on Silos 1 and 2 warehouse and construction of Silos 1 and 2 treatment facility mat foundation
- Continued rail construction, Silos 1 and 2 treatment facility tank erection and construction on shield walls around tanks
- Started up Radon Control System for Phase II extended testing
- Completed Silo 4 cutting and concrete removal demonstration
- **Silo 1 and 2 Project 12 percent complete**
- **Accelerated Waste Retrieval Project 55 percent complete**
- **Silo 3 Project 19 percent complete**

*Above: An additional 1,080 feet of track, which can hold 15 gondola cars, was installed adjacent to the current rail line near the waste pits project (6349-d2078).*

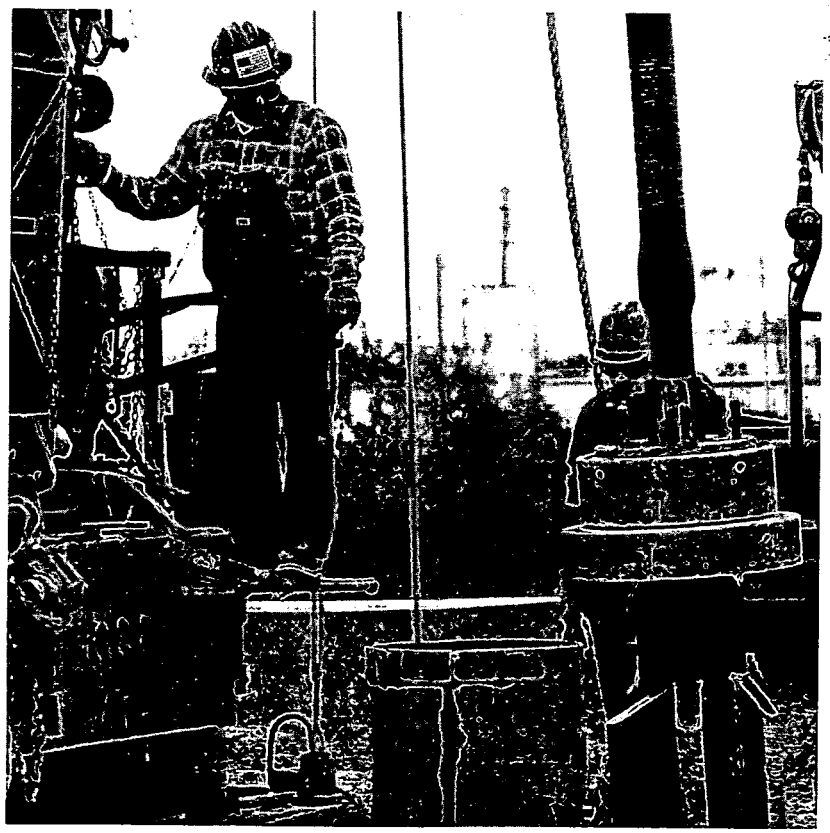
*Left: A remote-controlled excavator removes concrete from the Silo 4 wall during a demonstration project which helped engineers and workers better understand the structure of the silos (7815-d0185).*

## Soil and Disposal Facility Project

- Opened the On-Site Disposal Facility and placed over 20,000 cubic yards of material
- Completed excavation at the site of the former Fire Training Facility
- Continued excavation in the former Production Area
- Began installing the final cover on Cell 2
- Continued construction of the Cell 6 liner sub grade
- Continued operation of the bulk debris staging at the On-site Material Transfer Area
- Resumed planting activities in the Southern Waste Units and Northern Pine Area
- **Project 39 percent complete**

## Aquifer Restoration/ Wastewater Project

- Began additional geoprobing in the South Plume area south of Willey Road to further determine progress of cleanup and determine need for and, if necessary, design parameters for future South Plume Optimization Phase II module
- Continued field construction of the South Field Phase II infrastructure to support the addition of 4 new extraction wells, 1 new injection well, conversion of an existing extraction well to an injection well, and 1 new injection pond
- Enhanced the performance of the AWWT Phase II to acceptable levels by blending groundwater with the remediation wastewater and more frequent changeout of the ion exchange resins.
- February/March totals: extracted 303,502,000 gallons of groundwater, treated 209,529,000 gallons of groundwater, removed 158 net pounds of uranium from the aquifer
- **Project 64 percent complete**



*Top: A worker at the OSDF measures the clay liner of the Cell 1 cap as they prepare to cap Cell 2 (6319-d3972).*

*Right: A replacement extraction well for Well #21 is being installed as part of the South Field Groundwater Restoration Module (6261-d0668).*

# Cleanup **Progress** Update

## Demolition Projects

### Decontamination & Demolition (D&D)

- Ongoing activities in Plants 2, 3, 8, the Analytical Laboratory and Pilot Plant include: asbestos abatement; removal of equipment, piping, lead and interior transite; gross washdown and size reducing debris and placement in roll-off boxes for disposition
- Continued utility isolations and utility redistributions
- **Project 55 percent complete**

## Waste Management Project

- Submitted the application for approval to the Toxic Substance Control Act Incinerator and the State of Tennessee to ship Batch 13 liquid mixed waste
- Installed and initiated use of the Tee Mark Crusher in Bldg. 68
- Continued direct haul of containers to the Waste Pits Remedial Action Project
- Continued characterization and visual inspection of containers
- Continued packaging of materials for shipment to the Nevada Test Site
- **Project 96 percent complete**


*Top left: Mactec craft personnel cut and wrap a section of asbestos containing material piping from Plant 8A prior to demolition of the facility (6681-d0517).*

*Left: A Waste Management transportation driver loads the last T-hopper in a sealand container where it will await final disposition for shipment to the Nevada Test Site (7959-d0013).*

# Fernald's last Public Tour

June 10, 2003

Grill-out from 5:30 p.m. – 7:30 p.m.;

Early Bird Tour - 5 p.m. – 6:30 p.m.

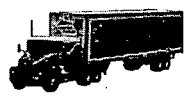
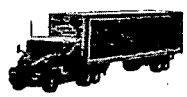
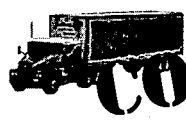
Late Tour - 6:30 p.m. – 8 p.m.

Pre-register by calling Jeannie Foster at 513-648-5883, or

Email: jeannie.foster@fernald.gov

Deadline for reservations: June 5. Great opportunity to see all major projects.

## Fernald Shipments – March / April 2003

| Contents / Destination | Shipment Mode | Number of Shipments | Monthly Total | FY03 Total | Approximate Project Totals |
|---|---|---|---|---|---|
| **Low-Level Waste** (Nevada Test Site) |  | 50 | 37,090 cu. ft. | 78,208 cu. ft. | 6.28 million cu. ft. |
| **Mixed Waste** - Materials & Energy Corporation at Oak Ridge |  | 3 | 927 cu. ft. | 7,580 cu. ft. | 18,835 cu. ft. |
| **Liquid Mixed Waste** - Toxic Substance Control Act Incinerator at Oak Ridge |  | 0 | 0 gal. | 2,638 gal. | 163,912 gal. |
| **Nuclear product/materials** (Portsmouth) |  COMPLETE | 0 | net lbs. or 0 metric tons uranium | 0 net lbs. or 0 metric tons uranium | 9,083,388 net lbs. or 3,541.1 metric tons uranium |
| **Soil and debris** - On Site Disposal Facility |  | N/A | 22,837 in-place cubic yards | 68,176 in-place cubic yards | 946,536 in-place cubic yards |
| **Waste Pits Project** (Envirocare of Utah, Inc.) |  | 4 unit trains (244 railcars) | 26,268 tons | 96,755 tons | 519,560 tons |

**Graphics # 5949**

# Silos conducts dome failure drill


What would Fernald do if a K-65 silo dome failed?

DOE-Fernald, DOE-Ohio, the Hamilton County Emergency Management Agency (EMA), the Butler County EMA and the State of Ohio EMA recently conducted a drill in the silos area to practice emergency response procedures in the event of a silo dome failure and fulfill the annual integrated drill requirement.

At about 9:30 a.m. on April 15, the continuous radon monitoring system high-level alarm activated in the Communications Center and the drill began. A cell phone caller stated that a crane had failed in the silos area and fallen into Silo 2. The communication technician spotted a 10 foot by 3 foot hole in the silo dome and noted that the crane operator was lying injured on the ground. Thus the scenario was set and personnel began to react.

The Communications Center contacted the Assistant Emergency Duty Officer (AEDO) and dispatched the Emergency Response Team (ERT). The Emergency Operations Center (EOC) assessed the situation and used the Emergency Message System to order area personnel to shelter in place. The AEDO immediately responded to the scene, gathered radiological and physical hazard information, established command post communications, and worked with the ERT. The ERT donned proper personal protective equipment, found the victim, stabilized and transported him to the site's medical treatment facility. Field personnel were preparing to take measures to secure the hole in the silo when the drill was terminated.

The drill met all training objectives and evaluators deemed the drill a success. "Our project's response to the drill was well-orchestrated," said Ray Corradi, Fluor Fernald Silos Project director. "We identified some areas we can improve upon and we're working on follow-up so we can be prepared for the future."

## Silo 3 Proposed Plan Public Hearing

The formal public comment period for the *Proposed Plan for Remedial Actions at Silo 3*, which outlines an amendment to the Operable Unit 4 Record of Decision, began April 30, 2003 and ended May 30, 2003. The Department of Energy held a public meeting on May 13 to discuss the *Proposed Plan for Remedial Actions at Silo 3* and accept oral or written public comments. For more information, contact Gary Stegner, DOE-Fernald Public Affairs Officer, at 513-648-3153, e-mail: gary.stegner@fernald.gov.

# From waste pits to prairies

As remediation of the Fernald Closure Project progresses, much of the site is undergoing ecological restoration. Forests, wetlands, and prairies will take the place of waste pits, buildings and borrow areas once cleanup is complete. Eventually, Fernald will convert more than 900 acres of the site to an ecosytem supporting many varieties of native plant communities and wildlife.

The field of ecological restoration is relatively new, and Fernald personnel assess the effectiveness of innovative restoration techniques and adjust management strategies primarily through monitoring. Monitoring is an important component of the ecological restoration program also because the Department of Energy and regulatory agencies that oversee the closure of Fernald are interested in assessing the progress of site restoration projects.

Part of Fernald's monitoring program involves comparing restored communities to reference sites representing ideal end-states. Comparisons are based primarily on vegetation and wildlife observations. Last year, Fernald personnel teamed with University of Dayton researchers to characterize such reference sites. They found an excellent example just west of the Fernald site off Paddys Run road and toured the wetland forest with one of the property owners in mid-April. April is the perfect time to see spring woodland wildflowers, and the wet forest did not disappoint. The team observed a variety of wildflowers including trout lily, may apple, sessile trillium, phlox, hispid buttercup, toothwort, jack-in-the-pulpit, and Greek valerian. The field visit confirmed that this property is an outstanding example of wetland forest and an excellent reference for ongoing restoration at the Fernald Closure Project.

*Above: Neighbor, Marvin Clawson (far right), points out carvings on a 100-year old beech tree to Eric Woods and John Homer (from left to right) as they toured his property. This forested wetland area serves as an excellent reference for ongoing restoration activities at the Fernald site (7800-d0193).*

# Congressman Steve Chabot checks Fernald progress

On Monday, April 14, 2003, Congressman Steve Chabot returned to Fernald for his annual site visit. This is the third time in the last three years Chabot has come out to see the cleanup work first-hand. The congressman, along with Congressional Aid Michael Harlow, toured the site with Ohio Field Office Manager Bob Warther, DOE-Fernald Director Steve McCracken and Fluor Fernald Senior Project Director Dennis Carr. "I continue to be impressed by the significant progress made each day in the cleanup operations at Fernald," said Chabot. "It's clear that the men and women involved with this important effort are dedicated to their work and are creating a better future for the local community."

*Above: (from left to right) Congressional Aid Michael Harlow, DOE-Fernald Director Steve McCracken, Congressman Steve Chabot and Ohio Field Office Manager Bob Warther discuss the work Fernald has planned for this construction season (7958-d005).*

# Alan Boeckmann visits Fernald

Just eighteen months ago, Fluor Chairman and CEO Alan Boeckmann stood beside Plant 6, Fernald's huge former metals fabricating plant. On April 8 he drove by the 20-foot-deep hole where Plant 6 once stood to be and commented on the cleanup progress the site has made. "I would have been disappointed if I came back here and recognized the place," he said, "but I didn't."

Boeckmann had quite a busy day at Fernald. He climbed up on Cell 5 of the On-Site Disposal Facility, met with project managers, discussed the decontamination and demolition of remaining process buildings, walked through the Advanced Wastewater Treatment plant, spoke with workers, and toured the Waste Pits Remedial Action Project. He stood atop the Silo 4 superstructure and watched crews busy on three major construction projects running simulaneously, visited the portable waste processing units on the Plant 1 pad and held a very well-attended all hands meeting.

"Without question, Fernald is a challenging project and I'm impressed by both the safety of the operations and how much has been accomplished here," said Boeckmann. "I truly appreciate the Fluor Fernald team's high level of commitment to accelerated safe closure."

*Above: (left to right) Ron Oakley, Fluor group executive, Ray Corradi, Fernald Silos Project manager, and Fluor Chairman and CEO Alan Boeckmann stand on top of the Silo 4 superstructure and discuss silos waste retrieval, treatment and shipping. The Silos Project is a critical part of Fluor Fernald's plan to reach safe closure by 2006 (7955-D018).*

*Above: (left to right) Lighthouse Youth Services Executive Director Robert Mecum, Fluor Fernald Project Director Jamie Jameson, New Beginnings Director Patty LaVaglio and Fluor Vice President Bob Fluor discuss plans to finish a wheelchair ramp and repaint some rooms at New Beginnings, a shelter for abused girls (7957-d0037).*

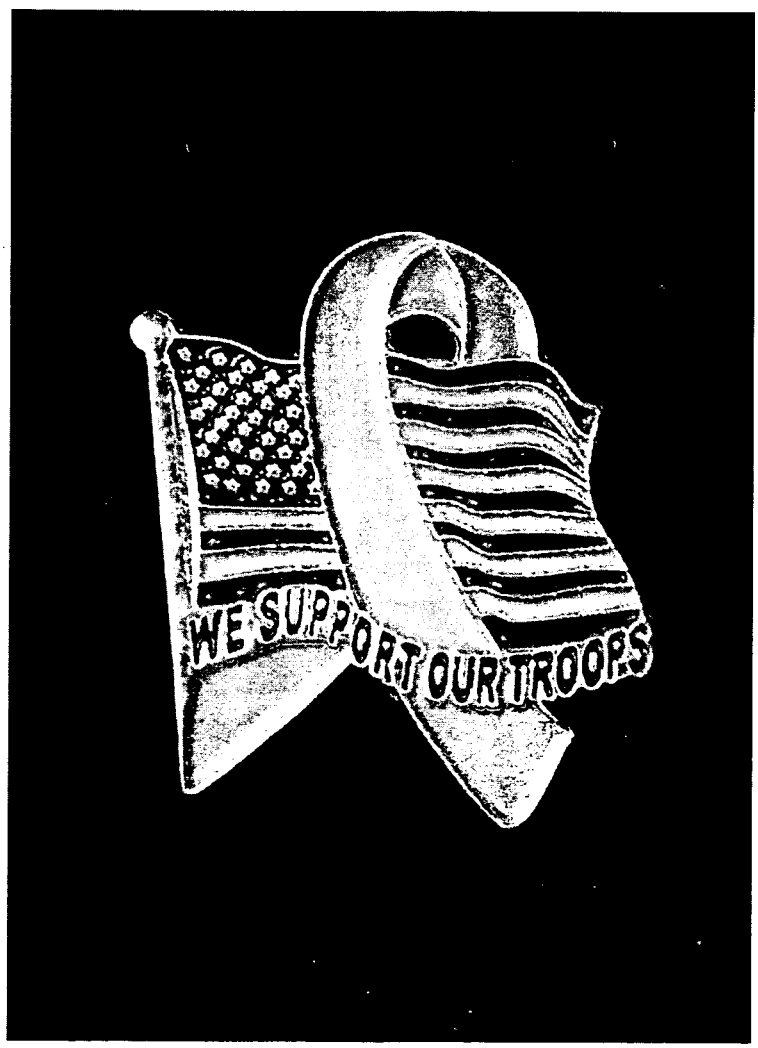
# Fluor recognized at Lighthouse dinner

Fernald volunteers and Fluor Vice President of Corporate and Public Affairs Bob Fluor were honored April 12, 2003 at the annual Beacon of Light Awards Dinner held at the Hyatt in downtown Cincinnati. Lighthouse Executive Director Robert Mecum thanked the Fluor Foundation and Fernald volunteers for their continued efforts at the New Beginnings home for abused girls. Dayna Eubanks, WKRC-TV anchor, was the master of ceremonies for the event, which also honored Rosa E. Blackwell, Lois and Richard Rosenthal, Shannon and Lee Carter, Raymond J. Brokamp and the Associates of Cincinnati Financial Corporation as 2003 Beacon of Light Humanitarian Award recipients.

# One Earth...One Chance

Every year cities around the country organize events to recognize national and local efforts that educate people about working together to preserve the planet's health. Cincinnati celebrated the 34th anniversary of Earth Day Saturday, April 19 at Sawyer Point. Fluor Fernald was a primary corporate sponsor and had one of the many environmental exhibits at the event, which was organized by the Greater Cincinnati Earth Coalition.

*Right: Sue Walpole, Fluor Fernald Public Affairs, talks to visitors at the Fernald exhibit during Cincinnati's Earth Day celebration at Sawyer Point (7963-d02).*


# Operation Yellow Ribbon

Operation Yellow Ribbon got underway at Fernald in late March with sales of "Support Our Troops" pins and the opportunity to donate money to the cause at the credit union. The effort raised more than $500, which will be used to help support Fluor Fernald employees and family members of employees who are serving in America's armed forces overseas. "People at Fernald are always very generous, and we're really pleased with the program," said Theresa Payne, a contract administrator who worked with Fernald Public Affairs to organize Operation Yellow Ribbon. "Most of the money will be used to pay for the soldiers' collect calls home."

The military action in Iraq may be winding down, but one employee and six relatives of employees are still in the war-torn region: Hank Becker, an environmental scientist in Fernald's groundwater monitoring group, is also Charlie Company Commander for the U.S. Army 478th Engineer Battalion; Phil Putman's nephew, Eric Allen, is an Army Ranger; Tony Chambers' son, Eric Chambers, is a Marine sergeant; Greg Skinner's nephew, T.G. Skinner, is a Corporal in the tank brigade; Bob Kuginskie's son is a Marine Cobra helicopter pilot; Bill Hensley's nephew, William, is a Marine; and Mike Hensley's son, Mike Hensley, Jr. is also serving in Iraq.

In a recent e-mail, Hank Becker sent greetings and thanks from Iraq. "Thank you all very much for your encouragement and thank you for helping (my wife) Julie and (daughter) Anna at home," he said. "We are still working hard here but are looking forward to getting back to the States. When that will be, however, is a subject of much debate; we just keep working one day at a time."

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# New documents added to the Public Environmental Information Center

The following information was added to the Public Reading Room, Administrative Record files and Post Record of Decision files at DOE's Public Environmental Information Center (PEIC):

- Waste Pits Remedial Action Project
  - DOE-Fernald Letter - Quarterly Report on Dryer Stack
  - OEPA Approval - Direct Haul of Bulk Waste Materials to WPRAP
- Soil and Disposal Facility Project
  - DOE-Fernald - Transmittal of the On-Site Disposal Facility Phase V Support Plans
  - DOE-Fernald - Construction Quality Assurance Plan for the On-Site Disposal Facility
  - OEPA Approval - Certification Report for Area 2, Phase 1
  - USEPA

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**Fernald Report**
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