

# fernald **Report**

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**July 2000**



**2000 - Where we stand**

**W**ith the summer and the construction season well underway, I thought I would update you on our major projects. This year we have sent 10 trains of waste from the waste pits to Envirocare of Utah, bringing our total number of trains shipped to 27. This equates to the project being about 25 percent complete and right on schedule.

We have also placed over 500,000 cubic yards of waste in the On-Site Disposal Facility. Traffic flow to the On-Site Disposal Facility continues to be heavy, about 160 trucks a day, as we take advantage of the favorable dry weather. Currently cell 1 is 90% complete; cell 2, 45% complete and cell 3, 10%.

Four structures have been demolished this year, bringing the total number of demolished components on site to 82. Plans to demolish Plants 5 and 6 are on schedule and our first major demolition project on the administrative side is moving forward with the demolition of Buildings 28a and 28b (formerly housing the Inspector General, Industrial Relations and Security departments) is slated for completion this fall.

Regulators have approved the Revised Feasibility Study/Proposed Plan for Silos 1 & 2. As you may recall, we held public hearings locally and in Nevada earlier this year on remediation options for this waste. After chemical stabilization was selected as the preferred alternative, the draft Record of Decision and Responsiveness Summary for that option were delivered to the EPA's in late June for their review.

Foster Wheeler has begun work on the Silos 1 & 2 Accelerated Waste Retrieval Project. In addition, the site preparation plans of Rocky Mountain Remediation Services (RMRS) for the Silo 3 Project were approved and construction is underway.

Our Advanced Wastewater Treatment Facility continues to treat millions of gallons of water from the Great Miami Aquifer. We are closely watching our contamination plume modeling of the former production area. Based on plume sampling, we are optimistic that the spread of contamination underneath Plant 6

and near some of the former waste storage areas is less than originally projected.

Finally, we completed thoria gel shipments to the Nevada Test Site (NTS) in June and have shipped nearly 1,500 metric tons of uranium product to Portsmouth, Ohio this year. Other waste inventories continue to be packaged and shipped to NTS on a regular basis.

The level of activity at Fernald remains high and our team has done an excellent job of keeping the workplace safe. In late May we reached 5 million safe work hours without a lost time accident, a milestone that has never been reached before at Fernald. While I know an accident can happen at anytime, listening to workers and making the appropriate changes has reduced or eliminated many of the potential hazards along the way and allowed us to execute our cleanup mission safely and on schedule.



*Jack Craig*  
Jack Craig  
Director, DOE-Fernald

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“The people that are responsible for making this happen are not standing on stage. You are the people that come out here every day and make safety your priority.”

— John Meese

## Fernald recognizes 5 million safe work hours

Fernald team members celebrated their 5 Million Safe Work Hours Milestone during an observance featuring John Meese, President of Metal Trades Department, AFL-CIO; Susan Brechbill, manager of the Department of Energy (DOE) Ohio Field Office; Jim Stein, president and CEO of Fluor Global Services; and Lynn Hemmer, field representative for Ohio Senator Mike Dewine. This milestone represents the longest consecutive safe work hour streak since the site began its environmental restoration mission.

Employees gathered in front of the Administration Building to receive congratulations from honored guests. The event was kicked off with a summer safety topic given by Fernald team member Marcel Monroe. Following the ceremony, team members received 5 Million Safe Work Hours shirts to commemorate this accomplishment.

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# Cleanup **Progress** Update

## Waste Pits Remedial Action Project (WPRAP)

- Shipped trains 24 and 25 to Envirocare of Utah (see Fernald Shipments section for details)
- Continue to operate dryers and process Pit 1, 2 and 3 waste

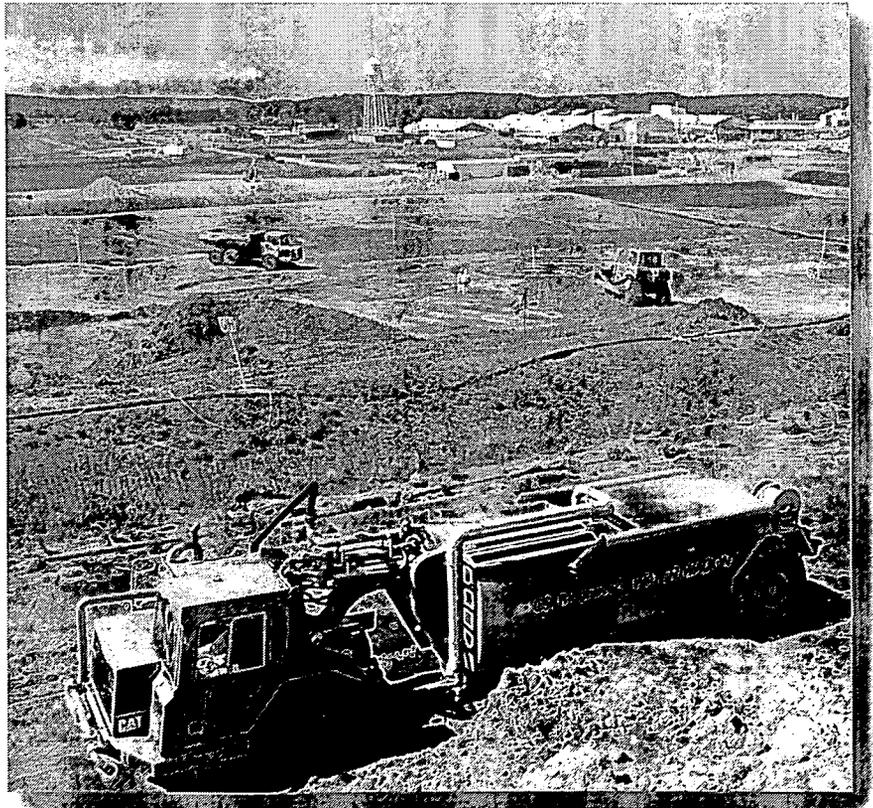
## On-Site Disposal Facility (OSDF)

- Placed over 38,500 cubic yards of soil and debris in the OSDF
- Completed the *North Entrance Road Traffic Impact Study*



*Above:*  
A heavy equipment operator loads pit waste material into a feed hopper. The hopper screens out large items before the material is conveyed to the dryer (6944-d1184).

*Right:*  
An operating engineer sprays water near Cell 2 to control fugitive dust emissions, while placement of waste takes place in Cell 3 (6319-d2497).



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## Demolition Projects

### Decontamination & Dismantlement (D&D)

- Plant 5 Complex —
  - ◆ Continued equipment removal in Building 5A
  - ◆ Completed structural demolition of Building 4B
  - ◆ Completed structural demolition of Building 55A
- Plant 6 Complex —
  - ◆ Continued interior equipment dismantlement in Building 70
  - ◆ Began exterior transite removal of Building 70
- Building 28A, 28B and 28N —
  - ◆ Completed demolition of Building 28N
  - ◆ Relocated Security personnel to T-85 next to existing badging trailer

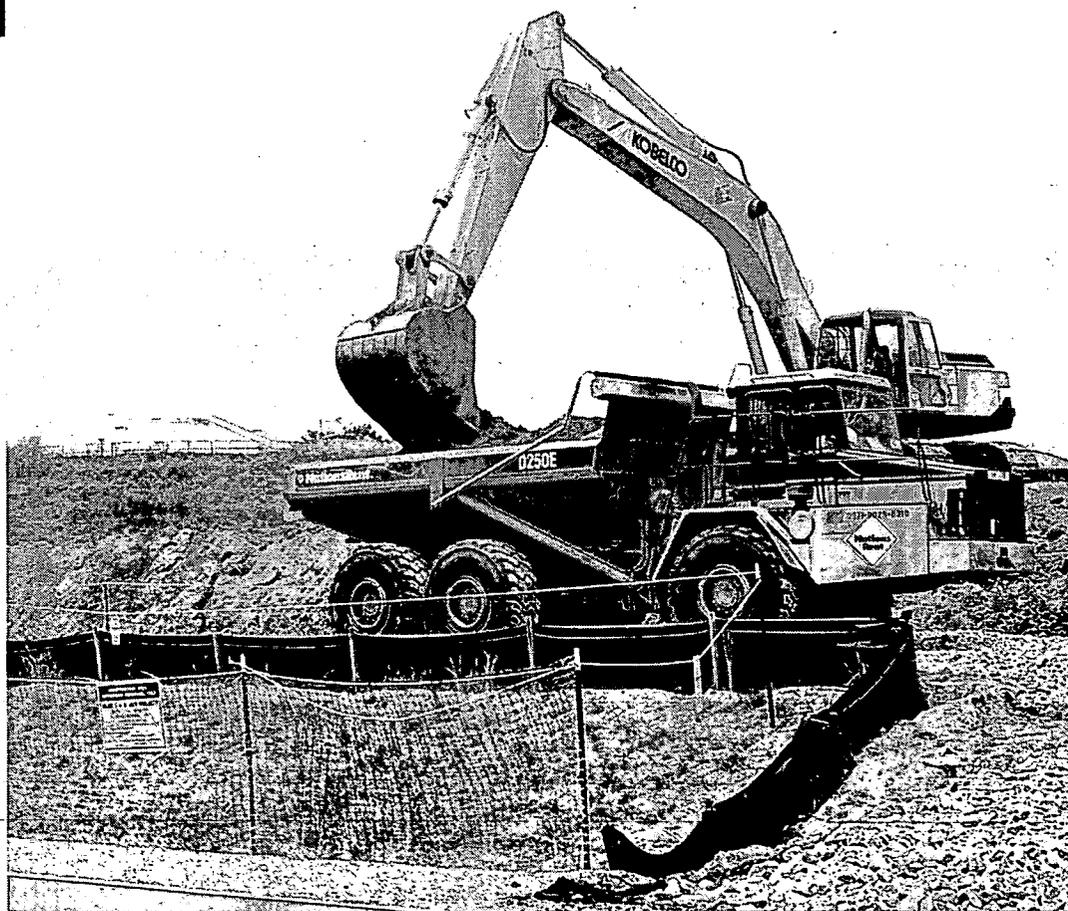


## Silos Project

- Conducted a briefing for regulators on the Remedial Design Package for Silos 1 and 2 Accelerated Waste Retrieval (AWR) Project
- Completed installation of silt fence and began initial grading for the AWR Project

*Above right: emco craft employee's load debris inside of Plant 5A. The debris will be loaded into a roll-off box for final placement in the OSDF (6401-d0514).*

*Right: A track-hoe places soil in a truck at the AWR project. A pad will be constructed in this area for placement of the Silos 1 & 2 holding tanks (7385-d0075).*



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# Cleanup **Progress** Update



## Aquifer Restoration/ Wastewater Project

- Certified the Alternative Remedial Action Subcontracting Approach Basin Reroute Design Package for construction
- Submitted the monthly Operating Report for the Re-Injection Demonstration to DOE for transmittal to the U.S. EPA and the Ohio EPA

## Soil Characterization and Excavation Project

- Continued off-property real-time scanning and soil sampling in Area 9 Phase 1
- Continued excavating soil from the South Field and Soil Pile 3
- Completed the annual Integrated Site Environmental Report

*Top:*  
Workers at the site of the Enhanced Permanent Leachate Transmission System are moving the interim leachate line in preparation to install the permanent line (7399-d57).

*Right:*  
A dump truck prepares to leave Stock Pile 3 with a load of soil. The soil is transported to the OSDF for final placement (76734-d1163).



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## Waste Generator Services

### ■ Thorium Legacy Waste Project —

- ◆ Continued shipments of thorium residue to the Nevada Test Site; 27 of 29 shipments have been completed as of June 30

### ■ Nuclear Materials Disposition —

- ◆ Continued shipments to Portsmouth, Ohio; 1,550.3 metric tons uranium shipped in FY00 as of June 30



Left:  
A Nuclear Materials Disposition team member inspects uranium metal rods prior to re-packaging (7368-d0097).

## Fernald Shipments — June-2000

Contents / Destination	Shipment Mode	No. of Shipments	Monthly Total	FY00 Total
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Contents / Destination</div> Low-Level Waste (Nevada Test Site)		19	11,778 cu. ft.	57,758 cu. ft.
Liquid Mixed Waste - Toxic Substance Control Act Incinerator at Oak Ridge		0	0 gal.	0 gal.
Nuclear product/materials (Portsmouth)		8	290,490 net lbs. or 126.4 metric tons uranium	3,611,012 net lbs. or 1,550.3 metric tons uranium
Waste Pits Project (Envirocare of Utah, Inc.)		2-unit trains (120 railcars)	12,909 tons	98,380 tons (916 railcars)

NOTE: One box shipped to Portsmouth in May in error; shipped back to us in June. Accounts for 1.3 MTU.

Graphics # 5949

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## Silo 3 status

**W**hen Fernald completes its environmental restoration mission, the Silo 3 project will have safely removed, stabilized, and transported the waste from the silo to an off-site disposal facility. This work will be at the forefront in the coming year. Rocky Mountain Remediation Services (RMRS), the firm contracted to design and build treatment facilities along with operating the Plant was recently authorized to mobilize for field activities. RMRS has also submitted the preliminary design for DOE and Fluor Fernald review.

Over the past month work was conducted and completed on the laydown area and the excavation of the gantry foundation has begun. The DOE submitted the Remedial Design Package to the EPA's in May and comments are anticipated in July. The Remedial Design Package is available for public inspection at the PEIC.



## Re-injection proves successful

**T**he 1996 Record of Decision (ROD) for Operable Unit 5 stated it would take approximately 27 years of a "pump and treat" remedy to fully restore the Great Miami Aquifer to appropriate cleanup levels. The ROD also allowed evaluation of innovative technologies which might enhance and accelerate the remedy. Re-injection is considered innovative although its concept is simple. Contaminated groundwater is extracted and treated at the Advanced Wastewater Treatment facility. The treatment waste is then re-injected back into the aquifer through five wells located along the southern boundary of the site. The desired role for using re-injection is to accelerate the aquifer remedy. With support from DOE's Office of Science and Technology, a year-long demonstration on re-injection has been successfully completed at Fernald.

"We're happy the demonstration proved successful. Re-injection, along with our early start initiatives and refinements in the understanding of the uranium desorption process, is anticipated to result in shortening the groundwater remedy by as much as 17 years while saving millions of dollars," said Johnny Reising, DOE-FEMP Associate Director of Environmental Management. With the proven success of re-injection, more wells will be installed in the coming years.

*Top: The added flushing effect that re-injection has on the uranium contamination indicates that re-injection will be a viable enhancement for remediation of the plume (6261-d500).*

## Intermodal Pilot Project

**I**n August, the Fernald site plans to make an intermodal shipment of low-level radioactive materials to the Nevada Test Site (NTS). Three Sealand containers of process area scrap will be transported via truck to a railyard in the local area. These containers will then be shipped via rail to a location in Utah and off-loaded back on to a truck for the final transport to the NTS. A request for proposal was recently issued to retain a third-party logistics provider to handle scheduling and tracking of these materials from the time they leave the site until they safely reach the disposal facility. Award of this contract is expected in late July.

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## Fluor HR Director likes sharing Fernald talent

"As a knowledge-based services company we've got to be able to identify and find new opportunities for our team members within the company. It's bad business to let good folks slip away while we've got real needs within Fluor Global Services or outside the enterprise," according to John Bradburne, president and CEO Fluor Fernald. That's why Bradburne has tasked his Human Resources (HR) Department to actively build bridges with other parts of the company that are in short supply of experienced workers. Recently Fred Grigsby, vice-president of HR Fluor Corporation, met with managers and team members to discuss the opportunities and programs here and across the company.

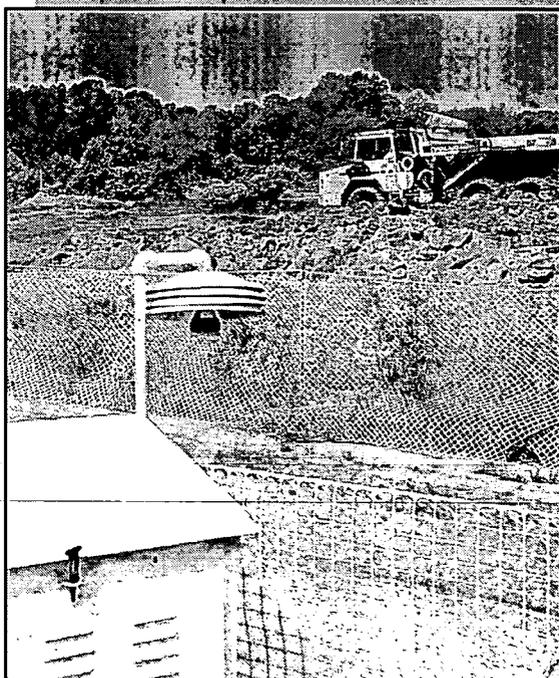
"As Fernald moves closer to completion, we (Fluor) as a company need to understand where we have needs and fill them, said Grigsby. The link you've established with the Hanford site in Richland, WA is a good example. When they need rad-techs or seasoned waste management personnel we should have resumes in hand."

Fernald's Small Business Office is one group in particular that has drawn the attention of DOE Headquarters and Fluor. Gwen Jones, manager of the Small & Disadvantaged Business Utilization Office was recognized by Grigsby and Bradburne with a



"People Are the Difference" Award for her work in helping Fluor Fernald receive an "excellent" rating from the U.S. Small Business Administration. Fernald was recognized for its' commitment to provide business opportunities to small, disadvantaged and women-owned businesses.

*Top: Fred Grigsby (standing), Fluor Corp. Vice-President Human Resources, spoke of his commitment to strengthen the link between project sites like Fernald. Gwen Jones (second from right) was recognized for her efforts in making the Fernald Small & Disadvantaged Business Office among the best in DOE (7413-d0020).*



## 1999 Site Environmental Report

DOE has issued the 1999 *Integrated Site Environmental Report (ISER)*, an annual report containing the results of Fernald's monitoring activities for the following environmental media:

- Groundwater, surface water and treated effluent;
- Sediment;
- Air (particulate, radon, and direct radiation);
- Produce, and
- Natural resources.

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The report also provides a summary of the site's compliance with environmental regulations, compliance agreements, and DOE policies that govern work activities. The 1999 ISER is available at the Public Environmental Information Center, 10995 Hamilton-Cleves Highway, 513-648-7480.

*Left: Low-volume air samplers are located at the boundaries of the waste pit excavation area to monitor concentrations of airborne Thorium-230 (6944-d1120).*



Above: Robin Bischoff (left) and Joyce Templeton (right) display the "Excellence" and "Merit" awards that were recently presented at the 2000 Bronze Quill Awards banquet (7463-d0002).

## Public Affairs team wins Bronze Quill Awards

The Fluor Fernald Public Affairs team won top honors from the International Association of Business Communicators. Robin Bischoff and the Multimedia Visual Services Team received the 2000 Bronze Quill Awards. Robin received the Award of Excellence in the area of Communication Campaigns/Special Event division for her work on the "Fernald Milestone Completion of Safe Shutdown." Bischoff had to submit complete documentation and photos on the safe shutdown event last year. Bischoff said, "This award is the product of a great deal of work from many people. I'm pleased that we were able to plan and hold an event which reflected the importance of completing Safe Shutdown at Fernald."

Multimedia Visual Services was also honored with an Award of Merit in the Audio Visual, Video Program division for their "A Cold War Chronology" video. Joyce Templeton, producer of the cold war video, said "This was a fun project for our team to work on together and it's nice to be rewarded for something that we love to do."

## Local Scholarship Winners

Fluor Fernald is pleased to announce the winners of a new program benefiting local students who wish to continue their education. Robert Doerflein, from Harrison High School is the recipient of a \$1,000 scholarship given in honor of the 15-year anniversary of Fernald Residents for Environmental Safety and Health (FRESH). He will be studying engineering and playing football at Thomas More College in the fall.

Amber Peters, stepdaughter of team member Debbie Peters, is the winner of another \$1,000 scholarship given to a child of a Fernald Atomic Trades & Labor Council member, in honor of Earl Branham. Amber, who is a junior at Purdue University, is studying to be an orthodontist. Congratulations!

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Right: Lisa Crawford, president of FRESH, presents Robert Doerflein of Harrison High School with the FRESH scholarship check (7420-d3).



## Recent Tours



### Restoration Up Close

The Ohio Society of Ecological Restoration held its annual meeting at Fernald. The Society's mission is to facilitate communication among restorationists, encourage research and contribute to public policy discussions. Fifty members from around the Midwest attended the daylong meeting to discuss and tour areas where restoration projects have begun. Craig Straub, from Fernald's Soil and Water projects, was pleased with the turnout and response from attendees. "Fernald is making rapid progress in the areas of ecological restoration and the end use of the site. The meeting included experts in the field who reaffirmed the practical techniques we are using in the restoration efforts."

*Left: Members of the Ohio Society of Ecological Restoration examine a research plot at the Fernald site during a recent meeting (6810-d358).*

The Cooperative Planning & Training (CP&T) group was formed in 1987 to communicate information relating to emergency response and to plan disaster drills. It's an excellent forum for the emergency response/planning peer groups to keep in touch and informed.

*Left: Representatives from several organizations belong to the CP&T including: local fire and police departments; township trustees; Cincinnati Health Dept., Ohio Emergency Management Agency (EMA), Butler and Hamilton Counties EMA, Ohio EPA, DOE, and Fluor Fernald (6810-d0361).*



### What do you do all day?

"It was fun!" "I really learned something today!" When was the last time you heard quotes like these at work? If you listened closely on June 14, this is precisely what could be heard when over 300 children visited Fernald to see what their parents do every day.

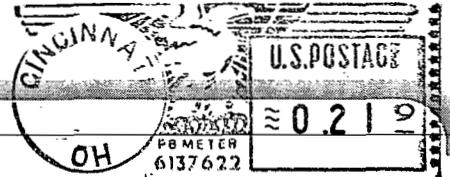
For the sixth year, Fernald hosted Take Your Kids To Work Day by inviting school-aged children to shadow their parents in an effort to understand careers and skills needed in the workplace. Parents also enjoyed answering questions and explaining in a hands-on way what having a job entails and why they leave every morning to go to work.

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*Left: Climbing up into the fire truck was a favorite activity for kids visiting the site during Take Your Kids to Work Day (6419-d27).*

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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):

- Soil Characterization & Excavation Project
  - ◆ Project Specific Plan for Area 2, Phase III Part Two Certification Sampling
  - ◆ Waste Acceptance Criteria Attainment Report for Soil Stockpile 3
  - ◆ OEPA Letter: Approval – Disposal of Removal Action 28 Waste in On-Site Disposal Facility
  - ◆ OEPA Letter: Conditional Approval – Certification Design Letter for Area 1, Phase III
- Facilities Closure and Demolition Project
  - ◆ OEPA Letter: Approval Interim Report on Decontamination and Dismantlement of Maintenance/Tank Farm Structures
- Silos Project
  - ◆ OEPA Letter: Approval – Accelerated Waste Retrieval Site Preparation Package
- Aquifer Restoration Project
  - ◆ Great Miami Aquifer VAM3D Flow Model Re-Calibration
  - ◆ February 2000 Re-Injection Operating Report
- Miscellaneous
  - ◆ Integrated Environmental Monitoring Status Report for First Quarter 2000

*Note: This does not represent the complete list of new documents added to the PEIC for the month of June. Contact the PEIC, 513-648-7480 for a complete list of new documents.*



### Fernald Report

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