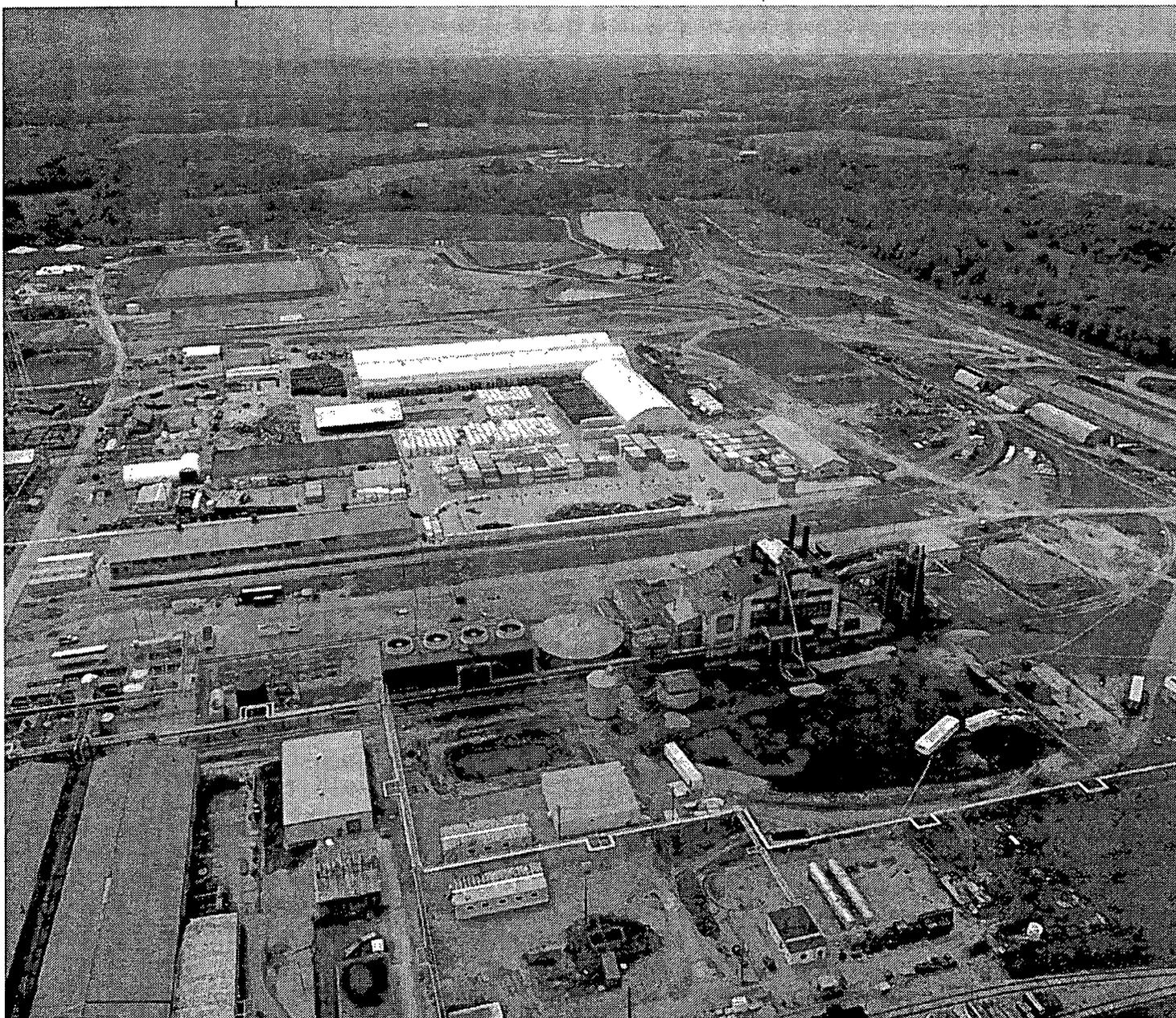


Fernald

Report

September 1997



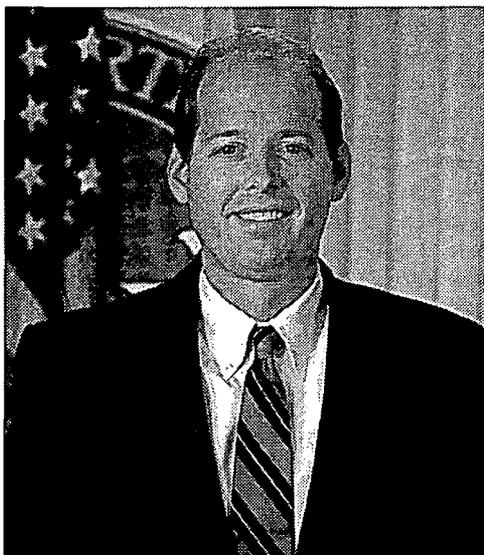
Several Sea/Land containers from the Fernald Environmental Management Project's Plant 1 Pad were shipped to the Nevada Test Site during the FEMP's accelerated shipping effort (6600-140).

message from

Jack Craig

Accelerating Waste Shipments to Nevada Saves More Than \$1 Million

As we reach the end of fiscal year 1997, I'm proud to announce a savings of approximately \$1,227,537 realized through Fernald's Waste Shipping program, which is responsible for the transport of waste from the Fernald Environmental Management Project (FEMP) to the Nevada Test Site (NTS).



DOE-Fernald Director Jack Craig (6171-177)

As of Oct. 1, 1996, Fernald had been limited to dispositioning a maximum volume of 397,644 cubic feet of waste at NTS. This maximum volume was based on a disposal cost of \$17 per cubic foot, which would have resulted in a cost of approximately \$6,760,000 during fiscal year 1997. Through cooperative efforts between DOE-Fernald, DOE-Nevada and Fluor Daniel Fernald, we were able to negotiate a maximum disposal cost of \$4,743,000 (as opposed to \$6,760,000) for wastes dispositioned at NTS during fiscal year 1997.

This reduction was achieved for several reasons. First, we agreed to maintain a more even shipment schedule of waste throughout the year. This eliminated some of the peaks and valleys in shipping and allowed NTS to have a more constant flow of work. Second, NTS allowed us to ship process area scrap and construction debris waste during the year. This was something we had done in the past, but wasn't planned during the fiscal year.

Finally, this waste was packaged in Sea/Land containers instead of white metal boxes. Previously, we had sent waste in both types of containers; however, the Sea/Lands are far easier for NTS to handle, and they require less personnel. In return, DOE-Nevada agreed to reduce the waste disposal rate from \$17 per cubic foot to \$7.75 per cubic foot. DOE-Fernald authorized and approved the new agreement to increase the waste volumes on April 7, 1997. The money saved can be returned to the Fernald budget for various uses. Establishing a fixed disposal cost has enabled Fernald to reduce waste from site inventories and has positively impacted waste storage and maintenance efforts.

Sincerely,

A handwritten signature in black ink, which appears to read "Jack Craig". The signature is written in a cursive, flowing style.

Director, DOE-Fernald

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Fernald's Enhanced Work Planning Team Recognized in Idaho

At a ceremony on Aug. 19 at Idaho Falls, Idaho, Fernald's Enhanced Work Planning team received a 1997 "Hammer Award" from President Clinton's National Performance Review Committee. The "Hammer Award" is a \$6 hammer wrapped in ribbon, and it symbolizes the dramatic change from the days when the government paid \$400 for a hammer.

Fluor Daniel Fernald President John Bradburne and members of Fernald's Enhanced Work Planning Team accepted the award at DOE's National Enhanced Work Planning Workshop in Idaho. The "Hammer Award" is the federal government's special recognition of employee groups that have made extraordinary progress and improvements in government effectiveness and efficiency and clearly demonstrate support of the National Performance Review principles. These principles include putting customers first, cutting red tape, empowering employees and getting back to basics.

Fernald's Enhanced Work Planning Team was one of several DOE sites to receive the "Hammer Award."

Other 1997 "Hammer Award" recipients included: Department of Energy, Washington, D.C.; Mound Plant, Ohio; Los Alamos National Laboratory, New Mexico; Pantex Plant, Texas; Oak Ridge Reservation, Tennessee; Idaho National Engineering and Environmental Laboratory, Idaho; Hanford Site, Washington; Savannah River Site, South Carolina; Tulane University, Louisiana; and Rocky Flats Environmental Technology Site, Colorado. For more information about Fernald's Enhanced Work Planning Team and the Hammer Award, please visit Fernald's Web site (<http://www.fernald.gov>).



The "Hammer Award" features a \$6 hammer wrapped in red, white and blue ribbon, and it symbolizes the dramatic change from the days when the government paid \$400 for a hammer.



Fluor Daniel Fernald President John Bradburne and members of Fernald's Enhanced Work Planning Team accept a 1997 "Hammer Award" at DOE's National Enhanced Work Planning Workshop in Idaho.



Fernald stakeholders learn about site cleanup progress at the Sept. 9 "Community Progress Briefing" (6687-4a).

First "Cleanup Progress Briefing" Successful

More than 60 people, including local residents, township trustees, community leaders and regulators, attended Fernald's Sept. 9 "Cleanup Progress Briefing," a new monthly public forum. "The stakeholder turnout was impressive," said Johnny Reising, associate deputy director, DOE-Fernald Office of Environmental Management. "They (stakeholders) really liked the chance to talk directly with all the lead project managers in one place at one time."

The new meeting format includes an update of each major Fernald cleanup project, followed by a presentation on a special topic, selected by stakeholders. "The topic for September was supposed to include a tour of the On-Site Disposal Facility (OSDF) construction site, but we had to postpone the tour due to the wet, soggy conditions in the field," Reising said. In place of the OSDF tour, Fluor Daniel Fernald Project Manager Mike Hickey presented recent photos of OSDF construction site activities. According to Reising, "There was enough public interest in touring the Fernald site that we plan to host a tour of the major cleanup projects next month, rain or shine."

Tour of Fernald's Major Cleanup Projects to be Featured in October Public Briefing

The October Cleanup Progress Briefing will feature a bus tour of Fernald's major cleanup projects. "We think this is a terrific idea. This will give our stakeholders an opportunity to see the real thing, rather than just photos," said Gary Stegner, director, DOE-Fernald Public Affairs.

The next Cleanup Progress Briefing will be Tuesday, Oct. 14, beginning promptly at 6 p.m. Stakeholders interested in participating in the bus tour should contact Jeanie Foster, Fernald Visitors Bureau, 513-648-5883.

Fernald Community Reuse Organization Selects Contractor

With DOE approval, on Sept. 11 the Fernald Community Reuse Organization (CRO) awarded Curt Paddock, Paddock Management Services of Cincinnati, the contract to provide economic development services to the community group. "We're looking forward to working closely with Mr. Paddock and making him part of our team," said CRO Chair David McWilliams. Paddock will assist the CRO with its working committees, long-range planning, and preparation of its planning grant. The term of the contract is Sept. 11 through April 1998, with an option for a one-year extension. The CRO is a nonprofit organization established by DOE to offset adverse economic and social impacts resulting from downsizing and closure of the Fernald site. DOE awarded the CRO a \$150,100 start-up grant on April 30.

4

Plant 9 and Thorium Complex Dismantling Contract Awarded

With the award of a \$5 million contract to dismantle the Plant 9 and Thorium Complex, Fernald continues to make progress remediating the site. Following an extensive technical and cost evaluation, Fluor Daniel Fernald awarded the contract to NSC Energy Services of Thorofare, N.J. The Plant 9 and Thorium Complex includes seven sizable buildings and several smaller structures to be dismantled. The buildings were used to process, refine and store uranium and thorium during Fernald's production years.

NSC Energy Services will begin mobilizing equipment and conducting field activities in October. The project is anticipated to be completed in less than two years as DOE and Fluor Daniel Fernald continue to make progress under an accelerated cleanup plan that includes dismantling approximately 125 buildings and support structures throughout the 136-acre former production area.

The Plant 9 and Thorium Complex is scheduled to be dismantled using conventional demolition techniques rather than explosive charges. "Because of the height and shape of the buildings in that particular complex, there's really no reason for implosion," said John Trygier, DOE Facilities Closure and Demolitions Project team leader. "The buildings we have imploded in the past have all been at least three stories high, but that's not the case with Plant 9. We feel the use of conventional demolition techniques will be the safest and most cost-effective means of dismantling these structures."

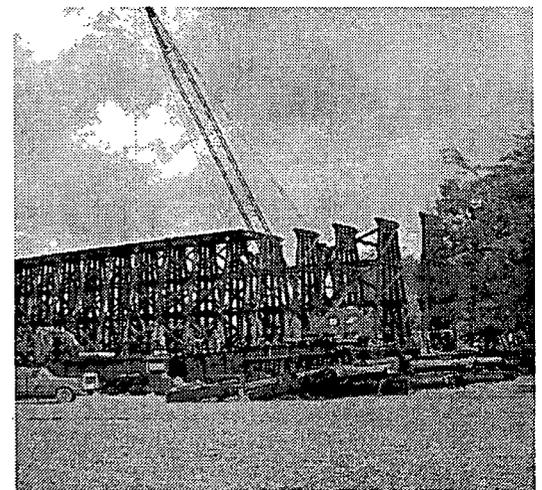
"Awarding this contract is yet another visible example of DOE and Fluor Daniel Fernald's commitment to safely restoring this site," said Jack Craig, DOE-Fernald director. "The landscape at Fernald is constantly changing for the better as we get closer and closer to our goal."

The buildings in the Plant 9 and Thorium Complex will be dismantled using conventional methods rather than implosion (6150-370).



Okeana Trestle Upgrades Continue

Work to upgrade the trestle along the CSXT rail line from Fernald to Cottage Grove, Ind., is approximately 75 percent complete. The subcontractor, Midwest Foundations, has completed most upgrades to the substructure, including the below-ground and structural framework. In addition, during scheduled train stoppages, Midwest Foundations has also replaced a portion of the wooden superstructure (the top portion where the tracks run) with steel. The project is scheduled for completion in October 1997. The trestle, one of the oldest in Ohio, is being upgraded to accommodate an increase in rail traffic that will occur during the remediation of Fernald's waste pits.



Beginning in March 1999, Fernald will ship approximately 780,000 tons of low-level radioactive waste from the pits to Envirocare, in Utah, for safe disposal (6349-1046).



Fernald Silos Project Schedule Revised

U.S. EPA will review all comments made during the dispute resolution public comment period, which has been extended until Oct. 4. After the public comment period ends, responses will be incorporated into a responsiveness summary document, which will be available to stakeholders (6600-121).

On Aug. 26, U.S. EPA officials presented the fundamental components of the agreement reached between U.S. EPA and DOE and provided an opportunity for stakeholders to formally comment on the Dispute Resolution Agreement pertaining to the Fernald Silos Project. The major components of the Silos Project Dispute Resolution Settlement Agreement include changes in the Silos Project schedule, preparation of a "Lessons Learned" document (*Lessons Applicable to Vitrification Activities*), five environmental projects, and a monetary penalty.

The *Lessons Applicable to Vitrification Activities* document guides the design and operation of other pilot-scale and full-scale facilities, provides better interaction between the design and construction phases of remediation, and encourages more integrated project management. This document is available in the "Safety/Lessons Learned" section of Fernald's Internet Web site (<http://www.fernald.gov>).

The five environmental projects included in the dispute agreement include:

- Conservation area near the Fernald site,
- Research grants for ecological restoration,
- Wild bird and flower habitat area,
- Railroad track recycling, and
- Structural steel debris recycling.

Monetary penalties associated with the agreement include a \$100,000 fine to be included in DOE's fiscal year 1999 budget request, a \$1.1 million penalty, and new, special projects that will enhance the environment around the Fernald site.

U.S. EPA will review all comments made during the dispute resolution public comment period, which has been extended until Oct. 4. Once the public comment period ends, responses will be incorporated into a responsiveness summary document, which will be available to stakeholders. Additional information about the Silos Project Dispute Resolution Settlement Agreement is available at the PEIC, 513-648-7480.

Silos Project Schedule Revisions

Following are revised Silos Project schedule changes:

Document/Milestone

Silo 3 Explanation of Significant Differences
 Award of multitechnical contract for proof of principle Silo 1 and 2 testing
 Draft supplemental Silo 1 and 2 Feasibility Study and Proposed Plan
 Draft Silo 1 and 2 Record of Decision amendment

Revised Due Date

Sept. 15, 1997
 Aug. 10, 1998
 Feb. 1, 2000
 Dec. 29, 2000

Silo 3 Draft Explanation of Significant Differences Document Available

The draft Explanation of Significant Differences (ESD) document outlining the proposed plan for the remediation of Silo 3 has been completed and was sent to U.S. EPA and Ohio EPA on Sept. 15. The draft ESD documents the proposal to use any of the following treatment technologies for Silo 3 remediation:

- *Cement Stabilization/Solidification*
- *Polymer (Micro) Encapsulation*
- *Sulfur/Polymer Encapsulation*

After regulators' review and concurrence, the draft ESD document will be available for stakeholder review and comment, and a public meeting will be held. DOE will respond in writing to all public comments via a responsiveness summary to be included in the final ESD document. The ESD document does not pertain to the selected remedy for the Silos 1 and 2 path forward.

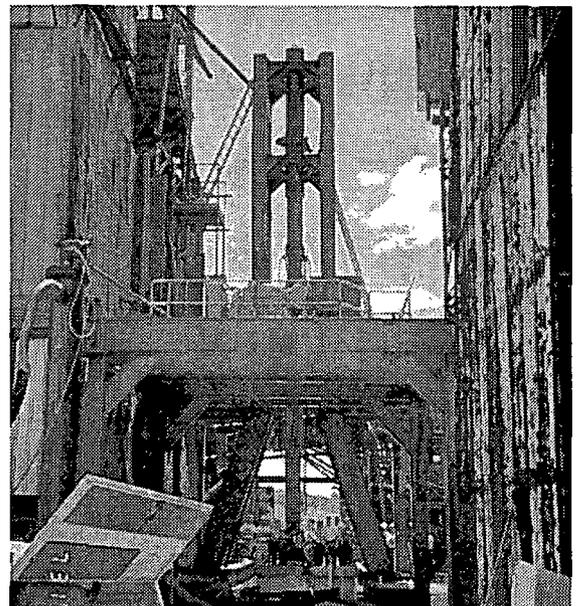


The draft Explanation of Significant Differences (ESD) document outlining the currently proposed plan for the remediation of Silo 3 (above) has been completed and was sent to U.S. EPA and Ohio EPA in September (6150-114).

EagleTech Offers New, Innovative Technology for Possible Use at Fernald

EagleTech has been awarded a contract to conduct a demonstration of its mobile-work platform at Fernald. EagleTech offers new, innovative equipment for removing piping and conduit. During recent visits to the vendor's demonstration site, an additional technology -- an arm-based remote waste retrieval system -- was viewed in operation by site personnel, and it is currently being considered for potential use during the Fernald Silos Project waste retrieval operations.

The work platform consists of a mobile chassis, an articulating arm and an "end effector," the EagleTech equipment is capable of grabbing pipe or conduit, cutting it and then lowering it safely to the ground or inside a storage/disposal container. (An end effector is a mechanical or electrical linkage, such as a robotic arm, used to position the tool to the desired location.) A single operator on board the mobile chassis/platform can do the work, or the operator can do the work remotely using radio controls or a connecting tether. This is a significant contrast and improvement over the traditional "baseline" method for removing piping or conduit, which requires laborers to work on ladders, scaffolding, and lifts with hand-held power saws. The EagleTech equipment enhances worker safety and reduces costs through elimination of scaffolding and rigging.



New, innovative mobile-work platform equipment could significantly enhance safety by eliminating extensive scaffolding and rigging (6656-16).



William "Vinnie" Vinson, left, is congratulated by coworker Jim Stone for becoming the first Fernald employee to celebrate a 45-year service anniversary (6680-11).

Vinson First Fernald Employee to Reach 45-Year Anniversary

For someone to work 45 years at the same place is rare, but William "Vinnie" Vinson recently became the first employee to celebrate his 45-year service anniversary at Fernald. "I'm proud to be the first Fernald employee to reach 45 years of service. Things have really changed over the years, and I'm proud of the work we do here," Vinson said.

"Vinnie is the epitome of the quality of our work force," said John Bradburne, Fluor Daniel Fernald president. "We thank you for your long service at the FEMP," Bradburne said as he presented Vinson with a Fluor Daniel diamond service pin. Many of Vinson's supervisors and coworkers, some of whom have already retired, were on hand for the presentation of the Fluor Daniel service pin, an engraved watch and Fluor Daniel stock.

1996 Site Environmental Report to be Available by End of September

The 1996 Site Environmental Report (SER) is expected to be available to the public by the end of September. The report summarizes the results of the ongoing Environmental Monitoring Program for samples collected during calendar year 1996. The SER also provides information concerning the progress toward achieving full compliance with requirements set forth by DOE, U.S. EPA, and Ohio EPA.

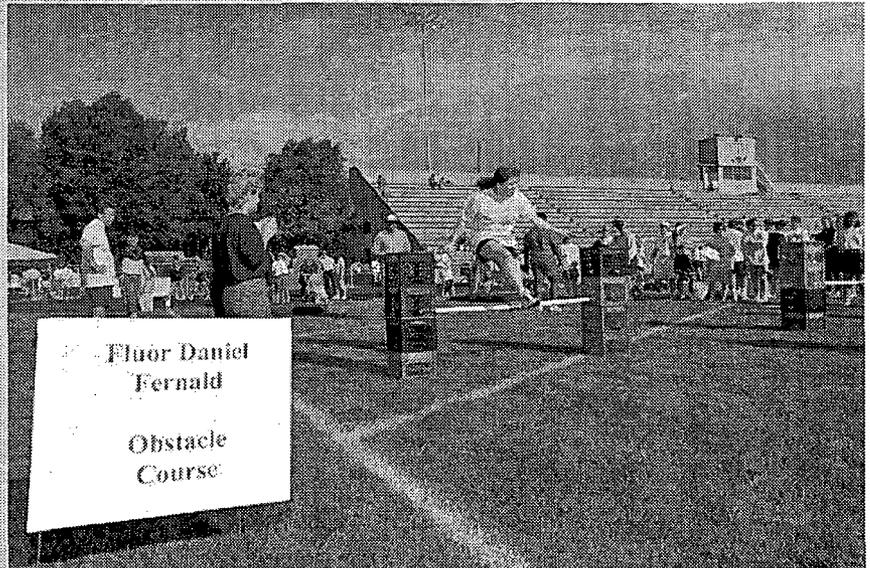
Samples collected during 1996 include air, radon, stack filters, groundwater, surface water samples, drinking water wells, sediment samples, fish collected from the Great Miami River and produce grown in local gardens. The results for 1996 are similar to those reported in 1995 for all media sampled. The dose to the maximally exposed individual for 1996 was estimated to be approximately one millirem.

Each year, by June 1, the SER is prepared and submitted for DOE-Fernald review, in accordance with DOE orders. The report is widely distributed to many audiences, including the media, elected officials, local schools, libraries, scientists and engineers. Copies of the report will be available at the PEIC, 513-648-7480.

August 1997 Corporate Contributions

Health and Human Services -- \$3,200

- **Cystic Fibrosis Foundation Corporate Sports Challenge** -- Fluor Daniel Fernald sponsored the obstacle course event and also entered a 10-member team, which placed sixth in the corporate challenge. All proceeds were donated to cystic fibrosis research.
- **Colerain Community Playground** -- Mega Land is a 10,000-square-foot creative playground that is a wheelchair-accessible, multilevel wooden structure that will be built in Colerain Park, 4725 Springdale Road.
- **American Cancer Society** -- Fluor Daniel Fernald sponsored a hole at the Inaugural Barry Levey Golf Championship of Butler County, which benefits the American Cancer Society.

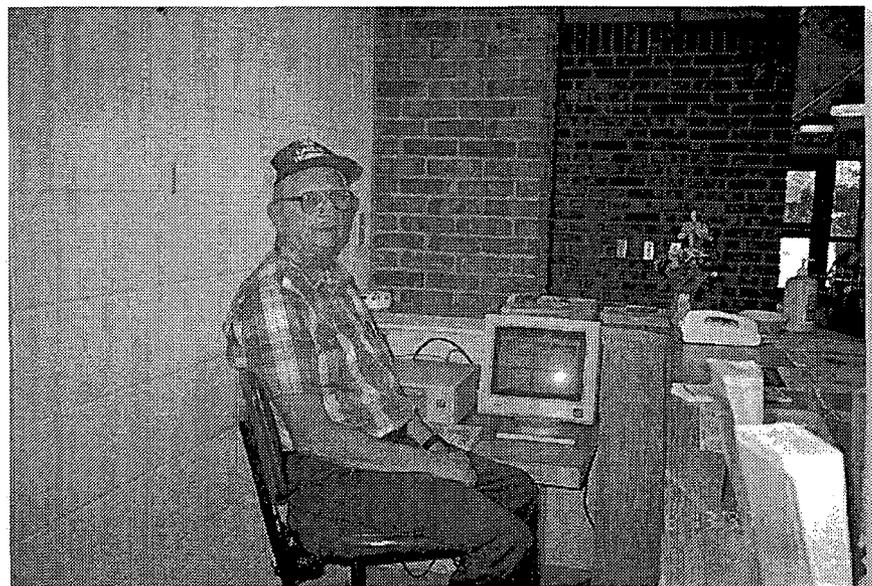


During the Cystic Fibrosis Foundation's annual corporate sports challenge, Fluor Daniel Fernald employee Leigh Fisher leaps a hurdle on the obstacle course. Fluor Daniel Fernald's team finished third in the obstacle course event and sixth overall in the competition (6684-4).

DOE Computer Donation Aids Whitewater Township

DOE and Fluor Daniel Fernald recently donated excess computer equipment to help modernize the Whitewater Township Community Center on Dry Fork Road. The community center received two complete computer systems, including central processing units, keyboards, monitors and printers. The computers are available for use by everyone -- from children to senior citizens. The center accommodates between 400 and 600 people each month. Township officials, including Whitewater Township Community Center employees, also use the computers to help in their work.

"We appreciate the donation by the U.S. Department of Energy and Fluor Daniel Fernald. The computer equipment has helped us become more efficient. We use them every day," said Melissa McCabe, Whitewater Township Community Center director.



Joe Adams, a volunteer at the Whitewater Township Community Center, takes a break from working on a computer system donated by DOE and Fluor Daniel Fernald (6668-2).



Ross School Board Visits Fernald Site

On Aug. 21, several members of the Ross School Board and school administrators toured the Fernald site. The group plans to make the tour an annual event. During the board's visit, DOE-Fernald Deputy Director Glenn Griffiths presented an overview of Fernald. DOE-Fernald Public Affairs Director Gary Stegner presented the board with a mounted aerial photo of the site.

Sitting, from left, are Ed Teets, Tracy Jarvis, Marcia Lang-Canter and Ed Bosse. Standing, from left, are Gary Stegner, Steve Miller, Joel Fink, Rick Emery, David McWilliams and Glenn Griffiths (6675-2).



Dave Lojek, DOE-Fernald, discusses the finer points of rocketry with Crosby Elementary School students involved in Fernald's Partnership In Education Program (5690-25).

Education Outreach Programs Resume With New School Year

The beginning of school also marks the start-up of Fernald's Education Outreach Programs. Since 1992, Fernald volunteers have been involved with programs that reach thousands of students and teachers each year. Following are some of the education efforts with which Fernald employees are involved:

Environmental Explorer Post -- Associated with the Boy Scouts, this program brings students and businesses together to discuss and learn about career possibilities.

Junior Achievement -- Through this nationwide program, which affects first graders through high school seniors, volunteers go to classrooms to promote economic education and workplace readiness.

Partnership In Education -- This after-school science enrichment program runs throughout the year and includes Crosby Elementary, Miamitown Elementary, and Ross Middle schools.

New Information Available to Stakeholders at PEIC

The following information has recently been added to the Public Reading Room and post-record-of-decision files at DOE's Public Environmental Information Center (PEIC):

- **Natural Resource Impact Assessment and Natural Resource Restoration Plan:** This report presents natural resource impacts at the Fernald site, as defined by the Natural Resource Trustees. It is being prepared to meet the regulatory responsibilities of the Fernald Natural Resource trustees pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Contingency Plan. It also presents an assessment of past impacts and anticipated future impacts resulting from past releases of hazardous substances and planned remediation activities, as well as potential post-remedial residual impacts.

- **Draft Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility:** This document was submitted to foster agency approval of the Fernald site's planned placement of the eastern soil stockpile in the On-Site Disposal Facility as a means to protect the cell liner during winter construction shutdown.

- **Decision Methodology for Fernald Material Disposition Alternatives:** This document describes the methodology that has been developed to help decision-makers compare and select alternatives for the disposition of radioactively contaminated materials at the Fernald site.

- **Plant Complex -- Phase I Project Completion Report:** This report documents completion and close out of the above-grade decontamination and dismantlement of the Plant 1 Complex -- Phase 1. The report summarizes remediation work performed during the Plant 1 Decontamination and Dismantlement Project and includes a description of work practice changes and project improvements, along with explanations for these changes.

- **Project EM Task Force Phase 2 Report -- FEMP Critical Analysis of Operable Unit 4 Vitrification and Potential Alternatives:** Prepared by the U.S. Army Corps of Engineers, this report includes information regarding the baselines supporting the accelerated cleanup plans for remediating DOE sites around the country. This report details the critical analysis of Operable Unit 4 vitrification and potential alternatives.

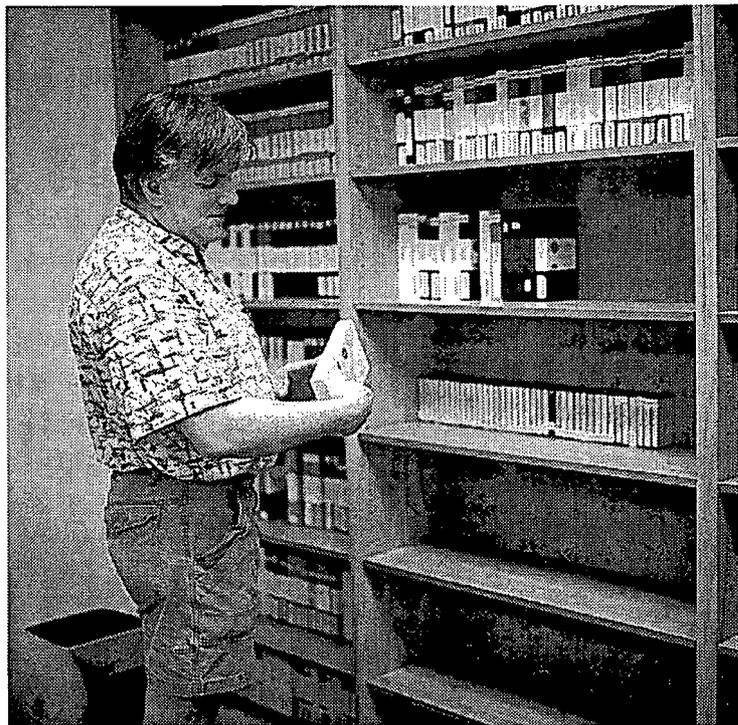
- **Final Integrated Environmental Monitoring Plan:** This plan documents revisions to Fernald's site-wide monitoring program, which is tailored to planned remediation activities. The revised plan has been designated as the integrated environmental monitoring plan and is the successor of the Fernald Site Environmental Monitoring Plan.

- **Site-Wide Excavation Plan -- Volumes 1-7, Revision C:** This plan addresses site-wide planning for remediation of soil and at- and below-grade structures and debris at the Fernald site. This document will provide the management strategy and technical guidelines to govern site-wide soil remediation.

- **Radiation Tracking System (RTRAK) Applicability Study:** The report sets the stage for routine utilization of a field-deployable analytical technique for use in soil remediation. This document includes evaluations regarding RTRAK characteristics and data quality parameters to determine how the RTRAK can best be used for various applications in soil remediation.

- **Comparability of In-Situ Gamma Spectrometry and Laboratory Data:** Two studies were conducted to determine whether In-Situ Gamma Spectrometry is applicable to soil remediation at the Fernald site.

- **Transcript of DOE Public Workshop on Silo 3 Path Forward, June 16, 1997.**



Staff member Lyndon Dees files a new addition to the PEIC video library, which is available to stakeholders (6625-16).

femp waste Shipping Report

The volume, in cubic feet (cf), of low-level radioactive waste shipped to NTS for August 1997 was 116,169 cf (external*). As of Aug. 29, 1997, DOE and Fluor Daniel Fernald had shipped 472,721 cf (external) of low-level radioactive waste from the Fernald site to NTS for fiscal year (FY) 1997. Low-level radioactive waste volume reduction includes approximately 4,439 containers of legacy low-level uranium residue and 4,601 containers of thorium oxalates/hydroxides identified in *FY 1996 Inventory Reduction Plan for Legacy Wastes at the FEMP*. Efforts for fiscal year 1997 are directed toward reducing legacy soil, liquids, and asbestos inventories. As of Aug. 29, 1997, legacy soil and liquid disposition milestones were approximately 95 percent complete.

In July 1997, NTS placed shipment of "Waste Stream 6 (Residues)" on full suspension until the Fernald site adequately closes corrective action requests or presents profiles during the NTS annual assessment scheduled for October 1997.

The volume of low-level radioactive waste materials per waste stream shipped to NTS in August 1997 follows:

Waste Stream	External Volume (cf)
Process Area Scrap	99,032
Thorium	1,247
Residues	0
Contaminated Trash	1,156
Construction	13,727
Stabilized Mixed Waste	1,008

The volume of low-level radioactive waste materials shipped to NTS in FY 1997 (as of Aug. 29, 1997) per waste stream follows:

Waste Stream	External Volume (cf)
Process Area Scrap	238,085
Thorium	99,778
Residues	69,984
Contaminated Trash	14,392
Construction	40,787
Stabilized Mixed Waste	9,690

*External volumes are equivalent to NTS burial volumes and are based upon the exterior dimensions of the container plus runners and associated void space between runners. (Runners are pieces of metal that are placed on the bottom of the boxes. The runners provide a 3-inch platform which keeps the box from having direct contact with the ground. The runners also enable forklifts to move the boxes.)



Fernald Report

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