fernald

Report

June 1999

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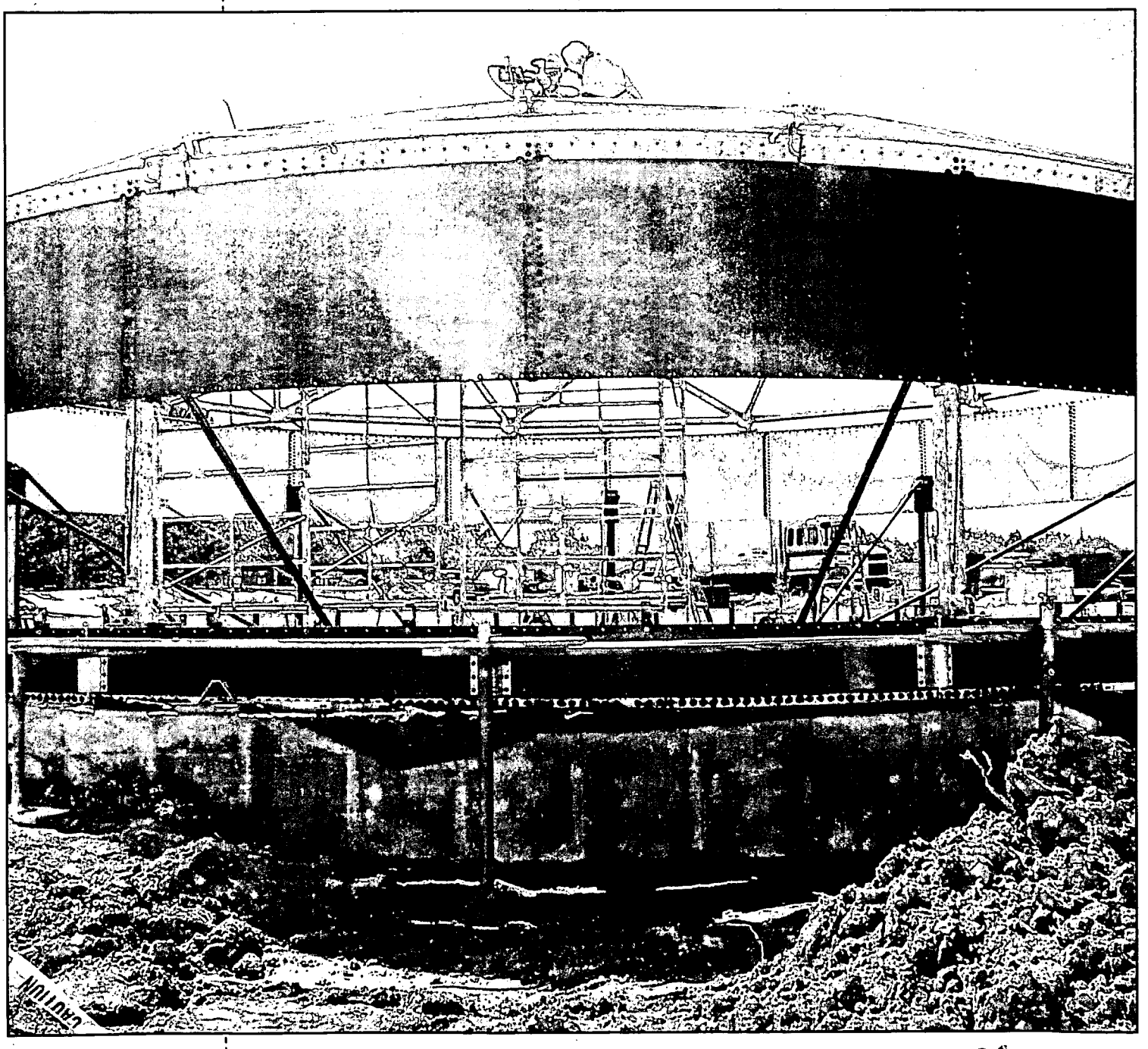

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message from
Jack Craig

Changing of the guard

As you may have heard by now, Secretary Richardson has appointed Leah Dever as the new manager of the Oak Ridge Operations office, replacing James C. Hall who will retire in July. Oak Ridge is about three times the size of the Ohio Field Office with over 14,000 employees, and is one of the most visible projects within the DOE complex. This is a tremendous opportunity for Leah to expand upon her career and for DOE to utilize her skills.

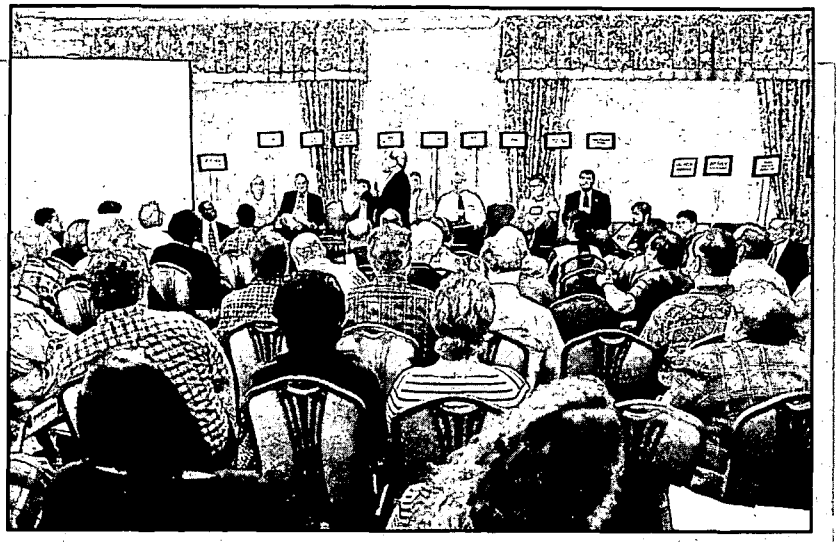
Over the past two years while Leah has been at the helm we have seen tremendous progress and have continued to build on the partnerships previously established. Often the first person to arrive at monthly public meetings, Leah took the opportunity to listen to local residents, community leaders and anyone else that had an opinion about the cleanup. She sat front and center, never allowing herself to become invisible in the back of the room. Her positive attitude and skills as a team builder helped establish or solidify bridges between regulators, stakeholders and the DOE.

On behalf of the entire team, we would like to thank Leah for clearing a path for us to successfully clean up Fernald and we wish her well in this new endeavor. And we welcome Susan Brechbill (see article on page 3) who will succeed Leah as manager of the Ohio Field Office.

Jack Craig
Director, DOE-Fernald

Left: Ohio Field Office Director Leah Dever greets Secretary of Energy Bill Richardson during his visit to Fernald last March (7084-33).

On the cover: *The new 400,000 gallon water storage tank will be on-line in August. The tank has been designed and constructed so it can be reused once the Fernald cleanup is complete (7014-D83).*



Transportation Workshop- public driven

From May 20-23, 1999, the Fernald Citizens Advisory Board sponsored a Transportation Workshop for stakeholders within the DOE complex. Approximately 100 members of community advisory boards and invited guests attended. Goals of the workshop were to improve understanding of transportation-related issues and decision-making processes; to foster dialogue among stakeholders regarding transportation; to identify common concerns; and begin developing joint statements for possible resolution of those concerns.

Opening sessions included presentations on transportation protocols and a general overview of DOE's National Transportation Program. Afterward, participants engaged in small and large group discussions on four core topics: routing, mode and cost; packaging, safety and risk assessment; stakeholder involvement and risk communication; and notification/emergency response. From the discussions came eight "Stakeholder Statements," which other advisory boards were encouraged to endorse.

Now what do the SSABs do with this information? They will take these statements back to their local groups, work on them together for consensus, and issue amended statements as recommendations to DOE. According to Gary Stegner DOE-Fernald Public Information director, "DOE recognizes the importance of the concerns reflected in these statements, and intends to take them very seriously."

For a complete summary of the workshop, or a copy of the eight stakeholder statements, contact Tisha Patton, Fluor Daniel Fernald Public Affairs, at tisha_patton@fernald.gov or 513-648-5277.

Above: Nearly 100 people attended the Transportation Workshop hosted by the Fernald Citizens Advisory Board in May. The forum served as an opportunity to bring host counties and generators together to face issues associated with waste transportation across the country (7135-D19).

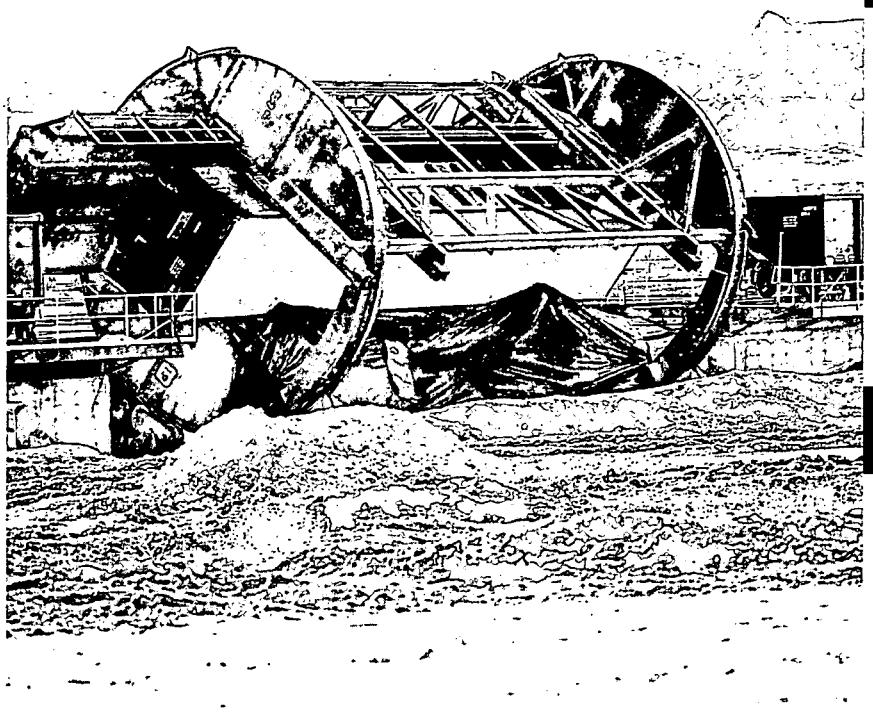
DOE Ohio Field Office welcomes Brechbill

On July 4, DOE-Hanford Chief Counsel Susan Brechbill will assume her new responsibilities as manager of the Ohio Field Office, replacing Leah Dever. Brechbill came to Hanford in November 1994 to serve as the chief legal advisor to the manager and staff. Two years later, she chaired the Source Evaluation Board for the selection of the Project Hanford Management Contractor. In 1997, Brechbill received the Secretary's Gold Medal for her work in the area of contract reform.

"Susan Brechbill brings to this position a unique combination of talents and capabilities in environmental management, industrial relations and program management," said Secretary Richardson.

Brechbill's impressive management experience includes director of Procurement for DOE's Oakland Operations Office, acting assistant manager for Environmental Management and Waste Management, acting assistant manager for Defense Programs and site manager of Lawrence Livermore National Laboratory.

Cleanup **Progress** Update



Waste Pits Remedial Action Project (WPRAP)

- ☐ Shipped second and third unit trains to Envirocare of Utah on May 17 and May 28 respectively, transporting a total of 10,990 tons of waste in 102 railcars
- ☐ Continued loading waste into railcars in anticipation of fourth unit train shipment
- ☐ IT Corp. continued constructing waste processing facilities and training site personnel for full operations

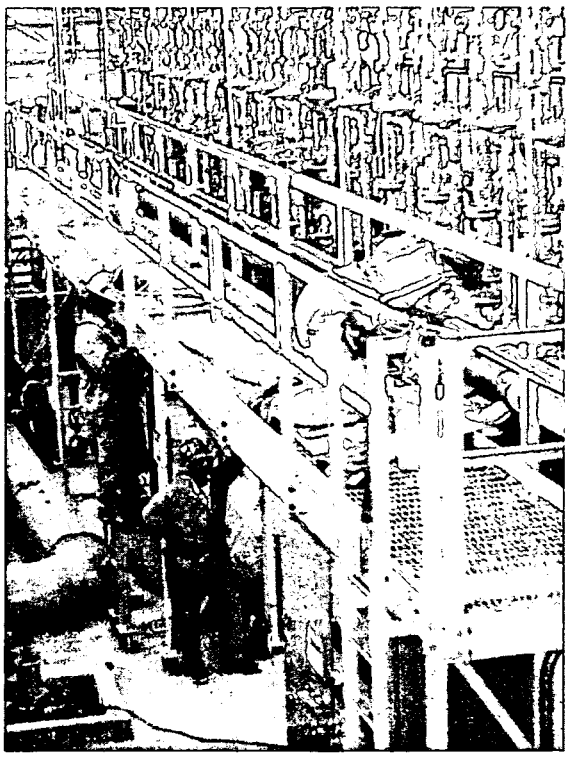
On-Site Disposal Facility (OSDF)

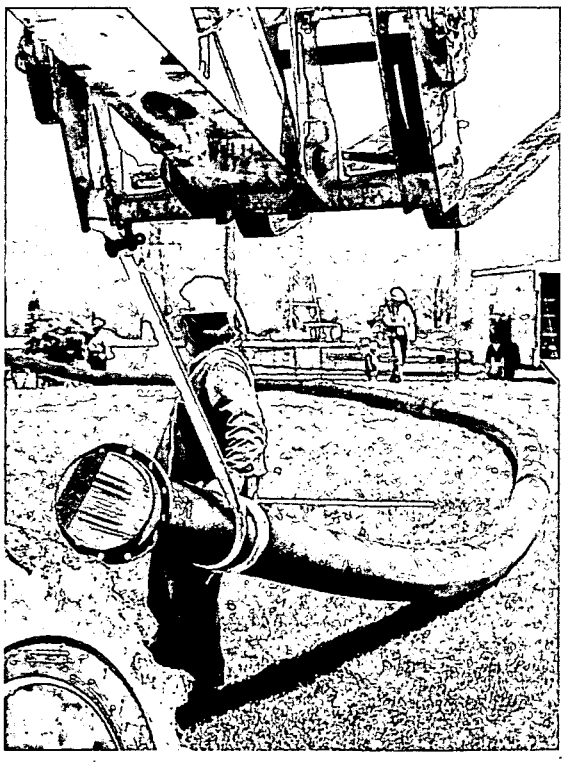
- ☐ Completed installation of Interim Leachate Transmission Line
- ☐ Continued clay screening in Borrow Area
- ☐ Continued Cell 3 construction

Above: Once in position, it takes Envirocare operators about five minutes to unload each car of Fernald waste. (7122-60).

Right: Iron workers complete welding of steel grating adjacent to the air/gas mixture lines for the waste pit dryers (6944-D0809).

Far right: A lift is used to position piping in the new leachate conveyance line. Nearly two miles of piping makeup the entire system that will carry leachate from the OSDF to the Advanced Wastewater Treatment facility (6319-D1913).





Demolition Projects

Facilities Shutdown

☐ Completed shutdown of pipe bridges

Decontamination & Dismantlement (D&D)

☐ Plant 5 Complex —
- ◇ Issued Notice-to-Proceed to D&D subcontractor, MACTEC, Inc., on May 17

☐ Maintenance/Tank Farm Complex and Water Storage Tank Project —
- ◇ Completed D&D of Buildings 12B and 12C
- ◇ Continued underground utilities installation and Water Storage Tank construction

Left: Acid brick is removed by hand from the former Maintenance Building (7118-D0028).

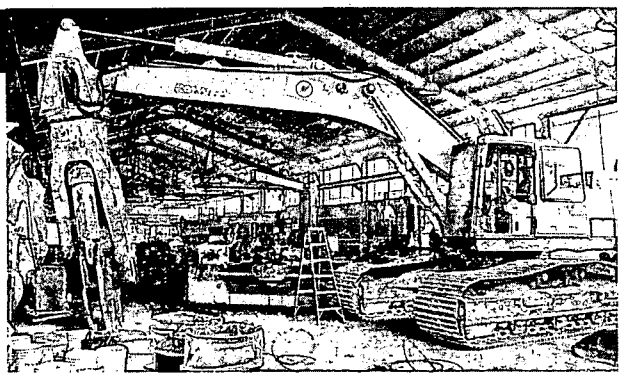
Below left: A shear is used to segment heavy equipment in the Maintenance Building machine shop. This equipment will be transferred to the OSDF (7118-D0030).

Silos Project

☐ Initiated dome seal repair work on Silos 1 and 2

☐ Staver Group completed installation of rock fill for Roads and Electrical Upgrade portion of Silos Infrastructure Project

☐ Initiated conceptual design activities for both Silo 3 Project and Silos 1 and 2 Accelerated Waste Retrieval Project



Below: While foaming operations took place on top of Silos 1 and 2, project managers and industrial hygiene technicians closely monitored the weather to ensure conditions were right for the three-step application process (7098-D149).

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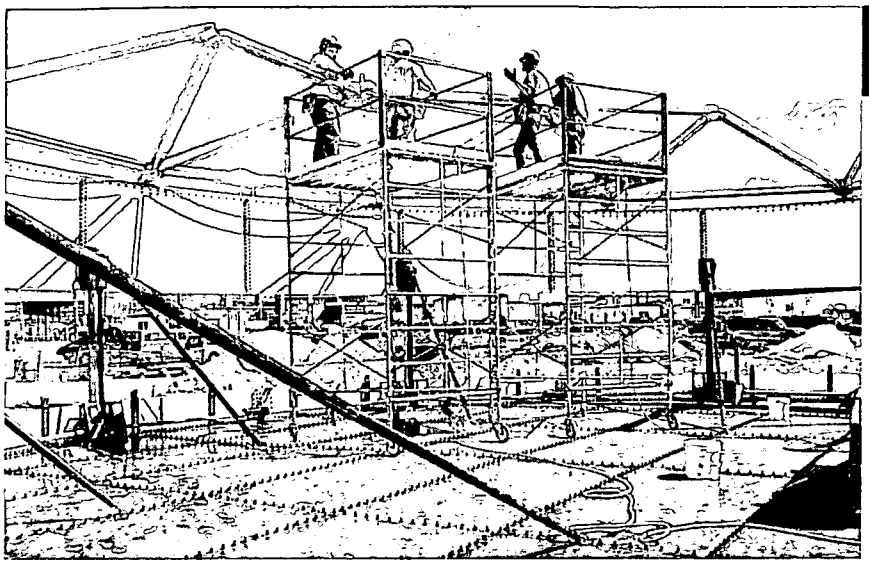
Cleanup **Progress** Update

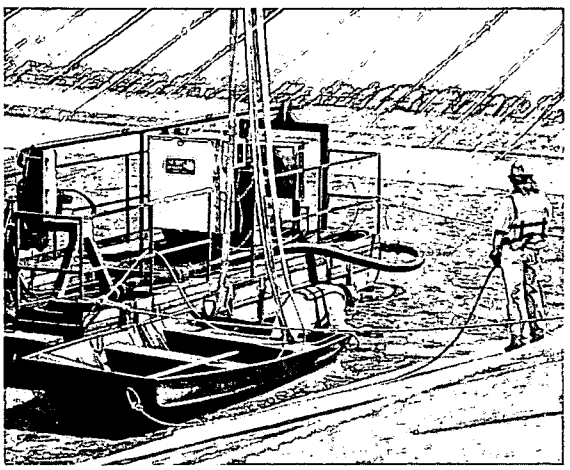


Aquifer Restoration/ Wastewater Project

- ☐ Continued constructing Sludge Removal System at Stormwater Retention Basin (SWRB) and Biosurge Lagoon (BSL); activity is approximately 75 percent complete
- ☐ Completed construction of SWRB drainage area improvements
- ☐ C-Force began constructing Advanced Wastewater Treatment Laboratory Expansion
- ☐ Initiated preliminary design of additional extraction wells for South Field Extraction System

Top:
On a typical day Fernald uses 250,000 gallons of water. A small business subcontractor working for NSC completes interior work on the new water storage tank that will meet the site's daily water needs (7014-D84).

Center:
Using portable well drilling equipment like the Geoprobe, water monitoring personnel can drill a well in a fraction of the time and cost of traditional systems. These wells allow engineers to pinpoint uranium contamination in the aquifer and better focus on extraction and treatment operations (7131-D26).



Right:
Dredging equipment is used to remove the sludge that builds up on the bottom of the Stormwater Retention Basin. Removing this material maintains the capacity of the basins (7086-D76).

Soil Characterization & Excavation Project

- ☐ Area 2 Phase I — Southern Waste Units
  - ◇ Completed additional Radiation Tracking System (RTRAK) scanning within Inactive Flyash Pile at Boring #3
  - ◇ Completed treatability study for stabilization of lead-contaminated firing range
- ☐ Area 1 Phase II — Southern Portion of East Field
  - ◇ Completed Trap Range Stabilization Treatability Study Report and received concurrence from Ohio EPA
  - ◇ Completed construction of Site Preparation Package
  - ◇ Received Ohio EPA approval of Certification Design Letter for North Area of Area 1 Phase II (Cell 3 of OSDF)
  - ◇ Began preparatory construction activities associated with Sewage Treatment Plant excavation, such as culvert/fence installation and diversion ditch construction
- ☐ Natural Resource Restoration
  - ◇ Continued planting in Area 8 Phase I vegetation plots
  - ◇ Continued construction of Wetland Mitigation Project

Waste Management Projects

- ☐ Thorium Legacy Waste Project —
  - ◇ Repackaged 76 boxes of low-level waste in preparation for shipment to Nevada Test Site
  - ◇ Segregated four boxes of mixed waste for storage and treatment
  - ◇ Total of 318 boxes repackaged and 56 boxes segregated
- ☐ Nuclear Materials Disposition —
  - ◇ Continued repackaging 14,500 10-gallon cans of depleted uranium tetrafluoride (UF_4) for shipment to DOE-Oak Ridge; 242 of an estimated 540 boxes have been repackaged
  - ◇ Initiated movement of uranium to Portsmouth, Ohio facility on June 2; first shipment contained 27,654 pounds of depleted UF_4 (green salt)

Above:
T-Hoppers containing UF_4, "green salt," are inspected prior to being overpacked in sea/land containers.
A total of 64 T-Hoppers will be transferred to Portmouth (7132-D02).

Left:
Hazardous waste operators connect a transfer hose prior to pumping methanol into a tanker for future disposition (7125-D11).

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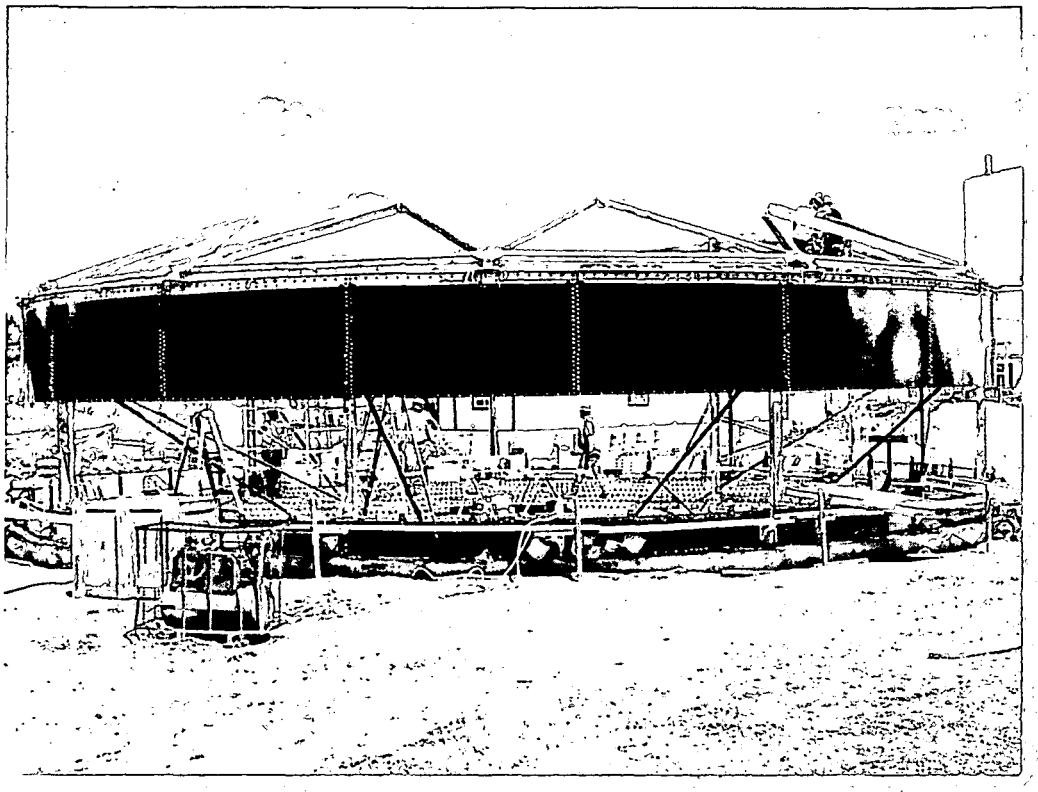
Water Tank to replace water towers



The East and West water towers located at the Fernald site have been highly visible fixtures since the early 1960s.

At present, the East Water Tower, with a capacity of 250,000 gallons, provides drinking water while the West Water Tower, with a capacity of 350,000 gallons, is used for fire protection. Both water towers will be torn down by 2001 as part of the site cleanup plan.

Since February 1996, drinking water has been provided by the City of Cincinnati's Bolton Water Plant. However, to adequately support fire protection and maintain a reserve drinking water supply throughout the site cleanup, a 400,000-gallon water storage tank and pump facility will be installed southeast of the Advanced Wastewater Treatment Facility and out of the way of future demolition and excavation. To facilitate quick installation and future relocation, the facility will consist of a bolted steel tank and a skid mounted pump station package system. When remediation is complete and there is no longer a demand for water, the tank will be dismantled and transferred to another DOE site or made available to the community.

Above: The new tank will replace an old 750,000-gallon storage tank scheduled for demolition next year (7014-D90).

Silo domes repaired

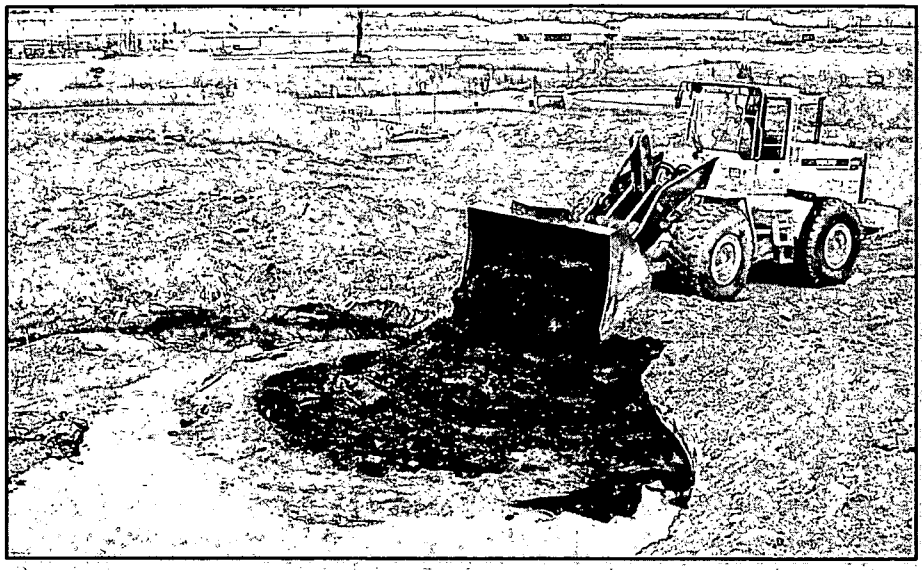
You may have noticed personnel working on the silos at Fernald. These workers were sealing the domes on Silos 1 and 2 to reduce radon emissions that had started to rise as the layer of bentonite covering the waste inside the silos continued to dry and crack. The operation included cleaning the domes, foaming and sealing penetration points including locations where core borings were removed. Approximately 15 areas of the silo domes required foam application.

Left: A foam sealant is applied to one of the manways on top of Silo 2 (7098-D131).

Intermodal transportation to be tested

For the past several months, DOE and Fluor Daniel Fernald have been evaluating the use of intermodal transportation for shipments of low-level waste. On April 8, 1999, a draft Request for Proposal for Intermodal Transportation was issued to stakeholders for review. As outlined in the document, DOE is seeking to award a contract to a qualified provider who will ultimately be responsible for managing the logistics for transportation arrangements from Fernald. Potential benefits for using intermodal transportation are currently being evaluated. These benefits include reduced risks and costs associated with shipping waste from Fernald.

Intermodal transportation is being evaluated for soil and debris mixed waste shipments from Fernald to Envirocare this July. This is a small, one-time-only contract that will serve as a pilot project for determining the future use of Intermodal Transportation. The pilot project will include material from the Sewage Treatment Plant area. This area will soon be excavated and the material will be placed into intermodal containers to be provided by the subcontractor. Approximately 10 containers will be transported from Fernald by truck to a the vendor's rail transfer point in Pennsylvania, from which the waste material will be transported by train to Salt Lake City. At Salt Lake City, the waste material will again be transferred to trucks for final transport to Envirocare of Utah. The containers will then be decontaminated and released back to the intermodal services subcontractor.



Left: Soil above OSDF waste acceptance criteria is mixed with digester sludge from the old Sewage Treatment Plant in order to absorb the moisture. About 1,000 cubic yards of material will be staged for intermodal shipment to Envirocare (6620-D220).

Fernald industry leader in technology

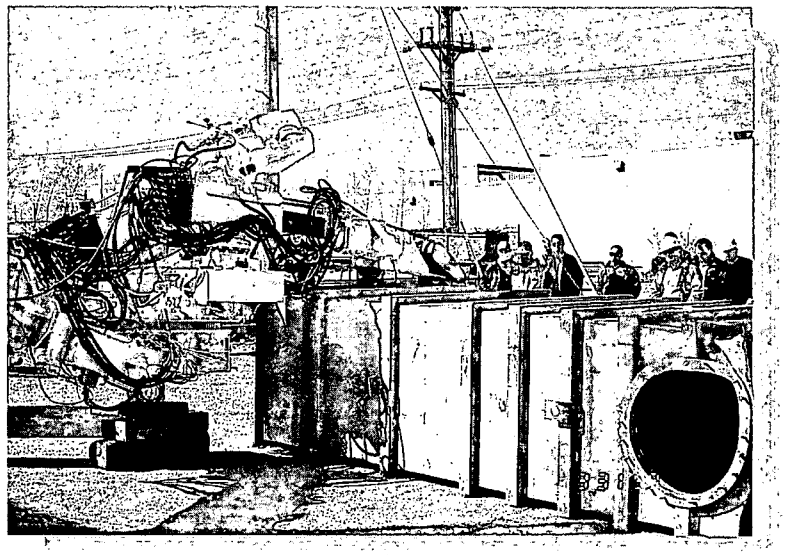
Fernald is recognized within the DOE complex as an industry leader for deploying new, innovative technologies resulting in safer, faster and more cost effective cleanup solutions.

At the request of Rocky Flats, Fluor Daniel Fernald Technology Programs personnel met with a nine-member team representing Rocky Flats, DOE, Rocky Mountain Remediation Services, Kaiser-Hill and Sandia National Laboratory to discuss remote-controlled decontamination and dismantling (D&D) equipment, specifically the Fernald Mobile Work Platform.

"The Mobile Work Platform was designed to eliminate potential safety risks associated with removing piping at elevations," said Mark Peters, Fluor Daniel Fernald Technology Programs. The remote-controlled equipment securely holds and cuts piping located at high elevations and places the piping directly into waste containers.

"Feedback from the Rocky Flats team on the technology exchange was very positive," said Peters. "The team appreciated our help and considered the exchange vital to their decision-making process in pursuit of remote-controlled D&D equipment."

Fernald demonstrated the Mobile Work Platform in December 1998 and is in the process of purchasing a unit to assist demolition workers.



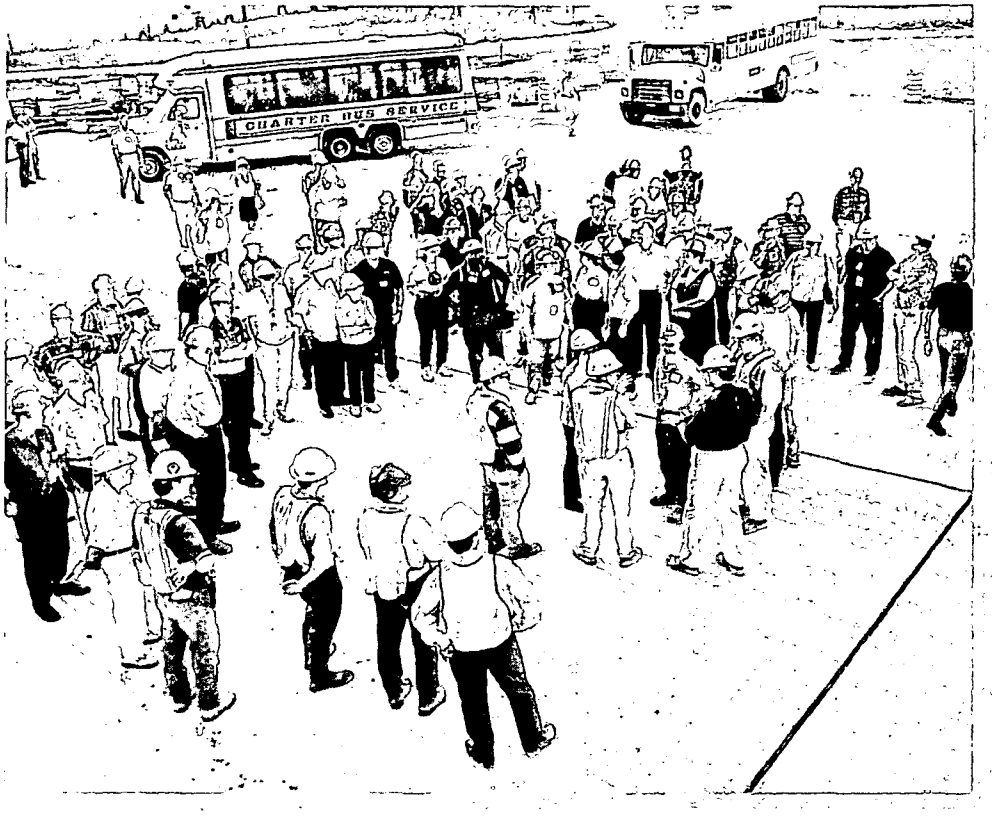
Above: Technology exchanges between DOE sites encourage innovation. Fernald's Mobile Work Platform was modified to meet Rocky Flats' unique needs. An abrasive cutting wheel was mounted to cut a stainless steel box, simulating a typical glove box used at Rocky Flats (7096-18).

Public tour attracts crowd

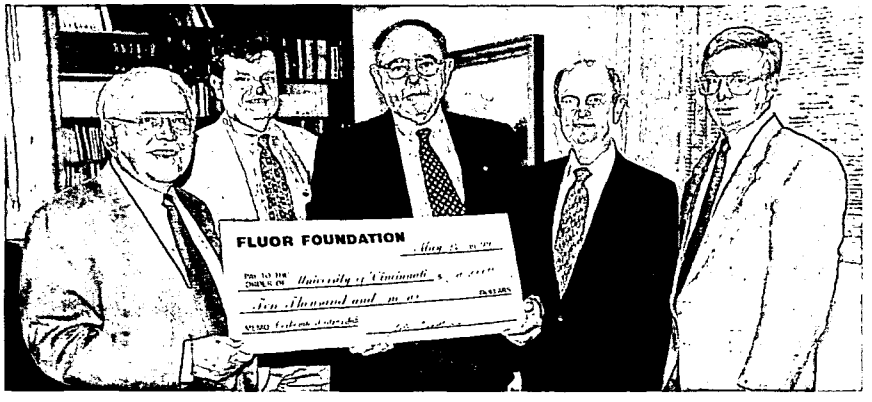
For eleven months each year, Fernald officials conduct monthly public meetings to give updates on cleanup projects and waste management. In place of the May Cleanup Progress Briefing, DOE and Fluor Daniel Fernald hosted an evening tour of the site for the general public. This was a great opportunity to see the projects they had heard about all year.

May 11, was a beautiful evening as over 80 people filled three buses to capacity. Tour speakers talked about the ongoing projects as the buses passed the Southern Waste Units, the Borrow area, the On-Site Disposal Facility, the restored wetlands, the silos, and the various former processing plants. Visitors also got to stop at the Waste Pits Remedial Action Project and tour the facilities.

"This is the kind of tour I really enjoy doing," said Johnny Reising, DOE-Fernald, associate director. "We had a lot of new people that had never been to the site and were just curious. This gives us a chance to show them the real progress that is being made at Fernald."



Right: Understanding how the waste pit material will be managed was a learning experience for visitors (6810-D206).



Above: John Bradburne (center), president and CEO of Fluor Daniel Fernald presents UC President Joseph Steger (left) a check from the Fluor Foundation. The money is earmarked for students in the engineering program. Accompanying Bradburne were (from left to right) Dennis Carr, Paul Pettit and Keith Wilkerson to discuss Fernald's commitment to continuing education (7137-D07).

Fluor donation to benefit future engineers

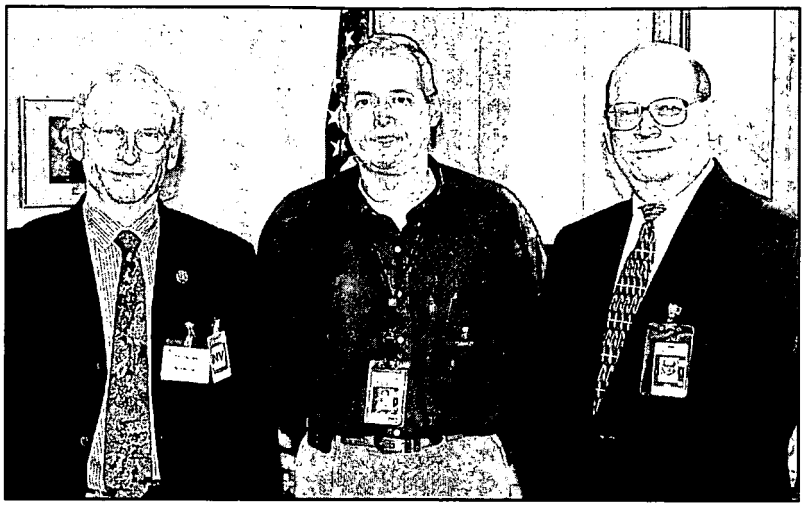
In its ongoing community outreach effort, the Fluor Foundation recently donated $10,000 to the University of Cincinnati to establish scholarships for students entering the School of Engineering. A long-standing relationship between the Fernald site and the university has fostered a partnership which benefits everyone involved, especially the students who gain valuable work experience and expertise.

University President, Dr. Joe Steger believes the "continuing collaborative relationship between Fluor Corporation and the University of Cincinnati will help to improve educational opportunities for future engineers."

Recent Tours

In honor of the 10th Anniversary of the Cincinnati-Munich Sister City relationship, Mr. Horst Haffner from Munich, Germany visited Cincinnati and participated in the opening ceremonies of the Ault Park Flower Show. Mr. Haffner is the City Minister (similar to a city manager) and heads 56 departments in Munich.

Right: (left to right) Haffner, Jack Craig, DOE-Fernald director, and Curt Paddock, advisor to the Community Reuse Organization (6810-D0204).



As part of the May 11 Public Tour, the buses made a stop at the Waste Pits Remedial Action Project where the visitors donned hard hats and safety glasses and were escorted by DOE, Fluor Daniel Fernald and IT personnel on mini tours of the area. They were able to see the Materials Handling Bldg., the two dryers, and the Gas Control System Bldg.

Left: Con Murphy, IT project director, talks to a small group of visitors and explains the technology and process that will be used to excavate the waste pits before the material is shipped to Envirocare (6810-D210).

Environmental Education Award

Every year Keep Cincinnati Beautiful recognizes the sponsors of its environmental education programs. On May 21 in City Council chambers, Alisa Rhodes accepted the Certificate of Appreciation on behalf of Fluor Daniel Fernald for contributions to a teacher workshop titled *Green Thumbs to Fight Litter.*

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
- ◇ U.S. EPA approval of Removal Action17 Stockpiles Project Specific Plan
- ◇ U.S. EPA approval of Area 1, Phase II Trap Range Stabilization Project
- ◇ Area 1, Phase II Supplemental Characterization Package
- ◇ Certification Report for Area 1, Phase II Sector 2B
- ◇ Project Specific Plan for Area 2, Phase I South Field Excavation Characterization
- ◇ Ohio EPA comments on the Project Specific Plan for Area 1, Phase II Excavation Monitoring and Precertification

☐ Facilities Closure and Demolition Project
- ◇ Operable Unit 3 Implementation Plan for Above-Grade Decontamination and Dismantlement of the Plant 6/East Warehouse Complex
- ◇ Operable Unit 3 Project Close-Out Report for Removal Action No. 12 – Safe Shutdown

☐ Aquifer Restoration Project
- ◇ February 1999 Operating Report for the Re-Injection Demonstration

☐ Miscellaneous
- ◇ Memorandum of Agreement Submitted to the Advisory Council On Historic Preservation between DOE-Fernald and the Ohio Historic Preservation Office regarding Fernald's Waste Pits Remedial Action Project Railroad Trestle Upgrades
- ◇ 1999 Integrated Environmental Monitoring Plan

Fernald Report
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