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FERNALD PROJECT CLEANUP REPORT APRIL 1994

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FACTSHEET

FERNALD PROJECT

CleanUP

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DOE Workshop

on the protection of
 Natural Resources at Fernald
 7:00 p.m. Tuesday, April 12
 Meadowbrook Inn, Ross, Ohio

Soil washing technology promising

Progress continues to be made on demonstrating a new treatment process for removing uranium from contaminated soil so it cannot pose a threat to human health or the environment.

Results from down-scale testing of the soil decontamination process known as "soil washing" is showing promise for significantly cleaning uranium-contaminated soils

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Safe Shutdown in progress

Fernald workers are now removing materials from equipment and lines as part of Safe Shutdown activities are in progress in the former production area.

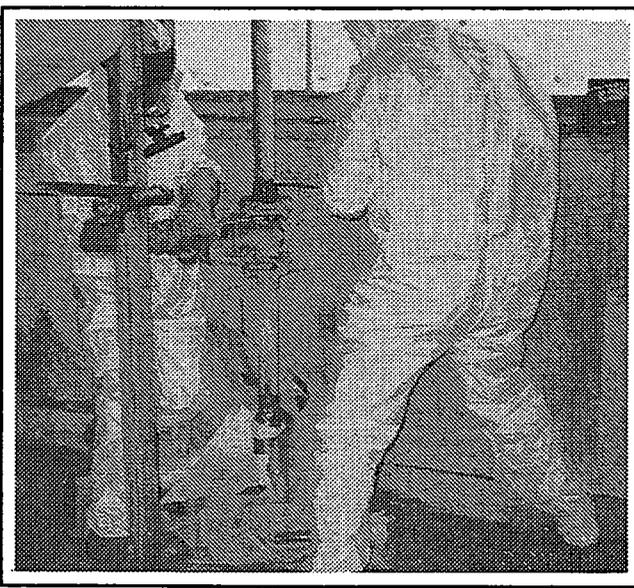
The Safe Shutdown program is responsible for removal of former production materials that were in the equipment and lines when Fernald's production operations were suspended in July 1989.

Approximately 337,000 pounds of solid materials and 419,000 gallons of liquid material are to be removed from equipment and lines. The removal process will take approximately three years to complete.

Implementation plans have been developed for removal of materials from equipment in Plant 4. The potassium hydroxide system has been

emptied except for an area of frozen lines. A safety assessment is in progress for the hydrogen fluoride recovery system, and the plan for clean-out of the hydrogen off-gas system is expected to be initiated soon.

This work is necessary before building decontamination and dismantlement activities can proceed in the former production area.



Fernald workers loosen a pipe as Safe Shutdown operations are under way in Plant 4.

Plant 7 dismantling in progress

Project Development Group, Inc. (PDG), a FERMCO subcontractor, is in the process of dismantling the interior of Plant 7 including electrical conduit, piping and duct work, and the interior walls.

Workers are expected to begin removing the building's transite siding in June 1994. PDG has subcontracted with Best Group, Inc., to remove all of the structural steel and concrete from the building. Actual dismantling of the steel structure is expected to begin in August 1994.

The seven-story Plant 7, the tallest building on the Fernald site, is the first of approximately 125 buildings planned for dismantlement as part of Fernald's environmental restoration mission.

New yardstick available to measure progress

DOE has approved a FERMCO planning document that spells out specific remediation work that can be accomplished in Fiscal Years (FY) 1994-99 with the funds available for Fernald.

Called the baseline, the document is a detailed, yet flexible, planning document containing the technical descriptions of remediation work to be performed, time schedules for completing the work, and cost estimates. It can be described as a yardstick by which DOE measures FERMCO's performance.

The baseline can be adjusted to reflect changes in actual funding levels which may be altered in the

Congressional budget process. In addition, the precision of the baseline will be enhanced each time U.S. EPA announces a Record of Decision (ROD) selecting a final cleanup alternative for one of Fernald's five Operable Units.

The RODs for four Operable Units will be issued in 1994 and 1995; the ROD for Operable Unit 3 (production area) will be issued in 1997.

The baseline addresses the Consent Agreement between DOE and the U.S. EPA, including the requirement that field work must be started within 15 months after a ROD is issued. Projects addressing

immediate environmental concerns are prioritized in the baseline.

Fernald's budget for FY 1994 is \$302 million. For FY 1995, the DOE has requested \$294 million. Major work to be performed during those two years include Plant 7 dismantling, Plant 1 Ore Silos dismantling, Uranyl Nitrate Hexahydrate (UNH) neutralization, Advanced Wastewater Treatment facility construction and startup, vitrification pilot plant construction, and continued waste shipping to the Nevada Test Site. Much of this work is in progress today.

FERMCO, FAT&LC agree on four-year contract

FERMCO and the Fernald Atomic Trades and Labor Council (FAT&LC) have signed a new labor contract.

Membership of the FAT&LC overwhelmingly ratified the new agreement, which became effective March 1, 1994, and expires February 28, 1998. The previous contract had expired September 30, 1993, and the union had been working without a contract while negotiations continued.

Les McCraw, chairman of Fluor Corporation (parent company of FERMCO), said "We face a great

challenge in cleaning up the Fernald site. A team effort will be needed to make our goals a reality. I am convinced that the successful conclusion of this collective bargaining process puts us on a path forward to achieve our mutual goals."

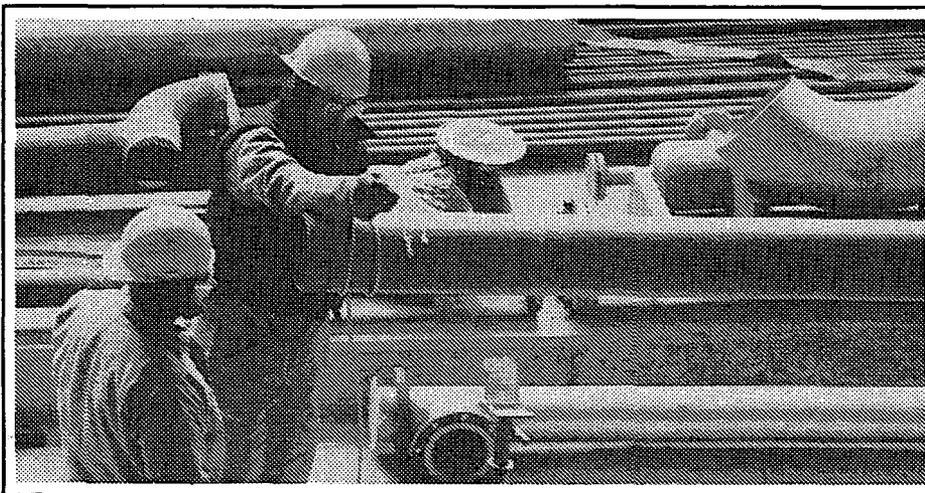
Gene Branham, vice president of FAT&LC, said the contract represents a collective effort to meet the concerns of all parties. "This is an imaginative and precedent-setting agreement which will allow us to clean up the Fernald site in a safe and cost-effective manner," Branham said.

Uranium metal to be shipped for disposal

Fernald is awaiting approval to ship 2.2 million pounds of depleted uranium metal to the Nevada Test Site (NTS) for disposal. The material was processed at Fernald for the U.S. Army.

Once approval is received, the material will be shipped at the rate of five truckloads per week and will take 14 weeks to complete. Since the material is the highest purity metal ever produced at Fernald, it will be disposed of in a separate trench where it will be retrievable should future needs require it.

This is Phase II of the Army metal removal project. Phase I, which was completed in November 1992, involved the removal of four million pounds of depleted uranium metal to Barnwell, S. C. Once Phase II is complete, there will be no more Army-owned metal on site.



Construction workers installing pipeline in the new Advanced Wastewater Treatment facility, which is expected to be operational in January 1995.

Soil Washing

Continued from page 1

in a timely and cost-effective manner.

The process being developed at Fernald uses physical and chemical means to separate the uranium from the soil. The uranium, and other contaminants of concern, are concentrated into a small volume of residue for disposal. The intent is to have treated soil returned to the site of excavation. The liquid extraction solution can be treated in wastewater treatment systems.

Soil decontamination work at Fernald is part of an approach that integrates development work sponsored by DOE's Office of Technology Development (OTD) with those of the Office of Environmental Restoration. The OTD uses a multi-faceted approach to develop and apply new technologies.

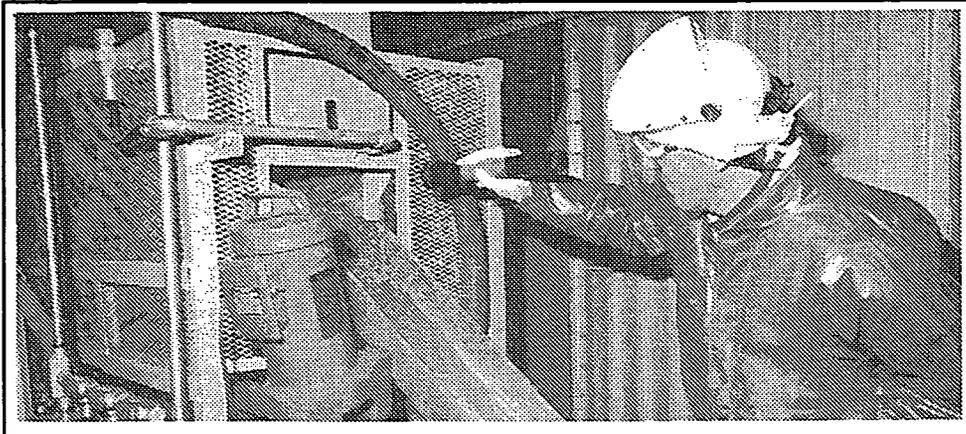
Fernald was chosen as the host site because its large volume of uranium-contaminated soils are representative of the technical challenges that will be faced at other DOE sites. More efficient excavation technologies also are being developed to remove only contaminated layers of soils.

Turpin wins Science Bowl

Five students from Cincinnati Turpin High School defeated 31 other local teams to become champions of the 1994 Regional Science Bowl. The February competition was organized by the Fernald Environmental Management Project.

The Turpin team adeptly responded to questions on the subjects of mathematics, chemistry, computer science, astronomy, biology and earth science, to come out on top. The team will travel to Washington, D.C. in April 1994, to compete in the National Science Bowl against about 50 regional winners from other DOE sites across the country.

Roger Bacon High School finished second, Harrison High placed third and Summit Country Day came in fourth.



A Fernald employee checks the soil washing operation in Plant 8.

Flyash disposal program reduces radioactive waste volume

Newly-generated flyash from Fernald's boiler plant is being shipped off site to a landfill for disposal as non-radioactive waste.

Flyash is the waste product from burning coal in the boiler plant to provide steam heat for buildings on the Fernald site.

Until recently, flyash was trucked from the boiler plant and dumped on an existing flyash pile located on the south side of Fernald property. Because portions of that flyash pile were mixed with uranium-contaminated materials in the past, the continued practice of dumping there was contributing to the amount of flyash that ultimately must be dealt with as radioactive waste. The existing flyash piles are targeted for cleanup as part of Fernald's Operable Unit 2 (Other Waste Units).

Now, all newly-generated flyash goes directly from the boiler

plant to trucks equipped with roll-off boxes. Those boxes are covered with tarpaulins, monitored to ensure they are not radioactive, and sent to a holding area. Rumpke, Inc., the low-bid vendor, picks up the boxes of flyash, dumps the material at its Colerain Township landfill, and returns the empty containers to Fernald.

"Under this new procedure, we're able to control newly-generated flyash very well from generation to disposal," said Rod Warner, Operable Unit 2 manager for the DOE.

"Only newly-generated flyash straight from the coal-fired boiler plant is picked up by Rumpke for landfilling. The existing flyash piles on Fernald property will be remediated under the terms of the Record of Decision scheduled to be issued by the U.S. EPA in January 1995," Warner said.

Excess equipment transferred to Army

Fernald workers have completed the removal of 11 pieces of new excess equipment for transfer to the U.S. Army.

Originally purchased for production purposes, the equipment was never used and has a book value of \$1.6 million. DOE would have received approximately \$800 for this equipment if it had been sold as scrap metal.

However, due to strict

radiological controls maintained at Fernald, this equipment may have had to be disposed of as radioactive waste. It would have cost approximately \$100,000 to package, transport and dispose of the equipment at the Nevada Test Site.

The U.S. Army will install the equipment at Aerojet Ordnance Division in Tennessee, where the equipment will be utilized for its designed purpose.

Plan for K-65 silos conditionally approved

DOE has received U.S. EPA's conditional approval of the Draft Final Feasibility Study/Proposed Plan-Draft Environmental Impact Statement (FS/PP-DEIS) for Operable Unit 4 (Silos 1-4 including the two K-65 silos).

The EPA will grant final approval after DOE satisfactorily responds to EPA's comments on the key cleanup document. Public comment on the proposed cleanup alternatives will be solicited before issuing a Record of Decision mandating final cleanup actions for Operable Unit 4.

The K-65 silos contain radium-bearing wastes which generate radon gas. A third silo contains dried uranium- and thorium-bearing wastes; the fourth silo is empty.

As a result of the FS/PP-DEIS, DOE has selected vitrification of K-65 and Silo 3 contents as the preferred alternative for final cleanup of Operable Unit 4. The vitrified material would be shipped to the Nevada Test Site for disposal. All four silos would be demolished.

The rubble from the silos, along with associated structures, soil

and other debris, would be stored at Fernald until a final decision is reached on how similar materials from other operable units will be dispositioned.

A formal public comment period on the FS/PP-DEIS for Operable Unit 4 began March 7 and will end April 20.

The FS/PP-DEIS is available for public review at the Public Environmental Information Center, 10845 Hamilton-Cleves Road, Harrison.

CTC environmental program gets boost from Fernald

FERMCO has awarded a \$96,310 contract to Cincinnati Technical College (CTC) to develop an Associates Degree program in Environmental Engineering Technology.

The DOE's Office of Technology Development is funding the contract as part of its program to train technicians and technologists for employment at DOE and other environmental restoration and waste management sites.

The funding provides support for faculty, curriculum development, laboratory equipment, student financial assistance, and

development of a recruitment plan for historically under-represented groups as well as students from the Fernald area.

Larry Morris, Dean of the CTC Engineering Technologies Division, said the program is intended to provide education leading to a wide variety of career opportunities for first line supervisors and field workers in industrial waste treatment and hazardous waste generation, accumulation, storage, treatment, and disposal.

The curriculum also addresses job specific skills such as safety, hazardous waste handling,

laboratory and field sampling and analysis, and knowledge of environmental regulatory requirements.

"CTC is an outstanding and innovative educational institution and this program affords its students unique opportunities to learn, observe, and develop their skills near a major Superfund site actively involved in remediation," said Phil Hamric, manager of the DOE Fernald Office.

Cincinnati Technical College is a state-supported two-year institution with accredited associate degree programs serving a three state region.

FERNALD PROJECT CLEANUP REPORT

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The Fernald Project Cleanup Report is prepared by Fernald Environmental Restoration Management Corporation monthly for the U.S. Department of Energy, to inform the community about cleanup progress at the Fernald Environmental Management Project. Address all inquiries regarding the Fernald Project Cleanup Report to:

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