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**FERNALD PROJECT CLEANUP REPORT
JANUARY 1994**

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**DOE-FN/PUBLIC
12
FACT SHEET**

FERNALD PROJECT CLEANUP REPORT

JANUARY 1994



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DOE proposes early demolition of production buildings

The U.S. EPA has approved DOE's Proposed Plan for Interim Remedial Action in Fernald's former production area. The plan calls for decontaminating and dismantling buildings and support facilities in advance of the final

Record of Decision to be issued by the U.S. EPA in 1997 for final cleanup of the production area.

DOE and FERMCO are presently addressing a comment from the Ohio EPA, which has granted conditional approval of the plan. The interim cleanup action was pursued as a result of concerns with the increased potential for releases from deteriorating structures in the 136-acre production area. The approved plan will allow an earlier response to potential human health and environmental risks from the deteriorating structures.

The plan calls for dismantling and removing all structures and related facilities in Operable Unit 3, and providing for temporary storage on site of the bulk rubble and debris. A determination on final disposition of rubble and debris

from the project will await the final Record of Decision for Operable Unit 3.

The Proposed Plan for Interim Remedial Action evaluates various interim cleanup alternatives available to DOE for reducing potential risks and to support the earliest start of cleanup in the production area. As described in the plan, DOE's preferred alternative to "decontaminate and dismantle" provides the quickest mechanism for reducing risks, and is the least costly alternative overall. Other alternatives considered and rejected were: 1) No Action; 2) No Interim Action; and 3) Surface Decontaminate Only.

DOE encourages public participation in the selection of the preferred alternative for the cleanup of the former production area. A 30-day public comment period began

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DOE's Dennis Anderson explains the Plant 1 Ore Silos dismantling project to visitors on Technology Demonstration Day. See story on page 6.

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December 8, 1993, and will run until January 7, 1994. The comment period provides an opportunity for local residents, interested parties and the public, to express their views and concerns on the remedial alternatives being considered.

DOE and FERMCO, in conjunction with the U.S. EPA and Ohio EPA, will hold a public meeting at 7 p.m. Wednesday, January 5, 1994, at the Plantation banquet room in Harrison, Ohio. Representatives from the respective agencies will be available to discuss the

alternatives and answer any questions. Written and oral public comments will be accepted at the meeting.

Following the public comment period, and assuming public acceptance of the preferred alternative, the DOE and EPA will sign an Interim Record of Decision for Operable Unit 3. The Interim Record of Decision will describe the selected interim remedial action and include the responses to comments received during the public comment period. After the document is signed, a design plan and

specifications for performing the interim remedial action will be prepared. Once the design is complete and approved, the interim remedial action can begin.

The Proposed Plan for Interim Remedial Action, and a separate fact sheet examining the trade-offs between the various alternatives, are available for public review at Fernald's Administrative Record located at the Public Environmental Information Center, 10845 Hamilton-Cleves Highway, Harrison, Ohio, 45030. The telephone number is (513) 738-0164.

Fernald site to tie into public water supply

Fernald received approval from DOE-Headquarters on November 16, 1993, to enter into contract with Cincinnati Water Works to tie the Fernald site into the public water supply pipelines planned for Crosby Township.

DOE-Fernald and Cincinnati Water Works are preparing a modified contract which will spell out the responsibilities of both parties for a 10-year term, including the

amount of water Fernald will agree to use on a monthly basis to help offset the costs of bringing a public water supply to a largely rural area with limited customers.

The grant for DOE's share of the cost has been signed by both parties and an initial \$500,000 has been paid to the Hamilton County Department of Public Works for costs incurred to date for engineering and other costs. Future "draws"

on the grant will be made according to grant agreements and the approved county disbursement schedule.

Based on current information, it is anticipated that construction for the Public Water Supply (external to Fernald) will begin in the late spring of 1994, with completion of the entire system including a 750,000 gallon reservoir by the end of 1994.

FERMCO appoints new action team

FERMCO announced December 15, 1993, the appointment of a new action team to intensify its management efforts at Fernald. The change was made to provide maximum concentration on all health and safety, labor, environmental, cost, schedule and quality aspects of the project.

Nick Kaufman, former president of FERMCO, has accepted other responsibilities with Fluor Daniel.

The new action team also will address the important needs of the various stakeholders involved in Fernald cleanup, including FERMCO employees, labor, community and environmental groups as well as federal, state and local governmental departments and agencies.

The action team includes William Breen, Sheila Little and John Bradburne, executives of Fluor Daniel, Inc., FERMCO's parent

company.

Breen has more than 40 years of project management experience. He will head the action team. Little will focus her attention on outreach activities with key stakeholders, and Bradburne will function as a special assistant to the Chairman and Chief Executive Officer of Fluor Corporation to ensure effective and timely communications.

Five-year work scope and schedules developed

FERMCO has completed its baseline for Fiscal Years 1994-99. The baseline spells out specific remediation work that can be accomplished with the funds available for Fernald. It describes the scope of work to be accomplished, and the cost and schedules for completing the work.

The baseline focuses on those projects which are addressing immediate environmental concerns. Other projects with less urgency are being placed on hold until funding becomes available.

Fernald's funding level for FY 1994 is approximately \$305 mil-

lion. This figure is \$60 million less than Fernald's requested funding level of \$365 million for the same time period. In spite of reduced funding levels, Fernald will be able to continue to comply with health and safety requirements, the Amended Consent Agreement with the U.S. EPA, and the Consent Decree with the State of Ohio.

The operating budget for environmental remediation and maintenance activities in FY 1994 is \$255 million. This funding is earmarked for major cleanup projects such as Plant 7 dismantling and construction of the Advanced Wastewater

Treatment system, and general housekeeping. The operating budget also provides funding for all of the ongoing CERCLA Removal Actions currently addressing near-term environmental concerns at Fernald.

The remaining \$50 million is for capital improvements and will provide funding for a new roof for Fernald's analytical laboratory; sealing of roadways in the former production area to encapsulate any contamination and provide for safe transportation; and other environmental safety and health improvements.

Fernald advisory group makes future land use first priority

The Fernald Citizens Task Force has completed the initial phase of its work. After considering background information concerning the Fernald site and evaluating alternative approaches to its mandate, the Task Force has determined to concentrate first on its recommendation on the future use of the Fernald site, said John Applegate, Task Force chair.

To facilitate the next phase of its work, the Fernald Citizens Task Force, DOE's site-specific advisory board for Fernald, has hired nationally-recognized consultants.

Douglas J. Sarno, until recently associated with the non-profit organization CleanSites, Inc., and Alice Shorett, president of Triangle Associates, which has extensive experience at DOE's Hanford site, were selected from among five re-

sponses to a request for proposals. The Sarno/Triangle team has more than 32 years experience in environmental issues and public participation.

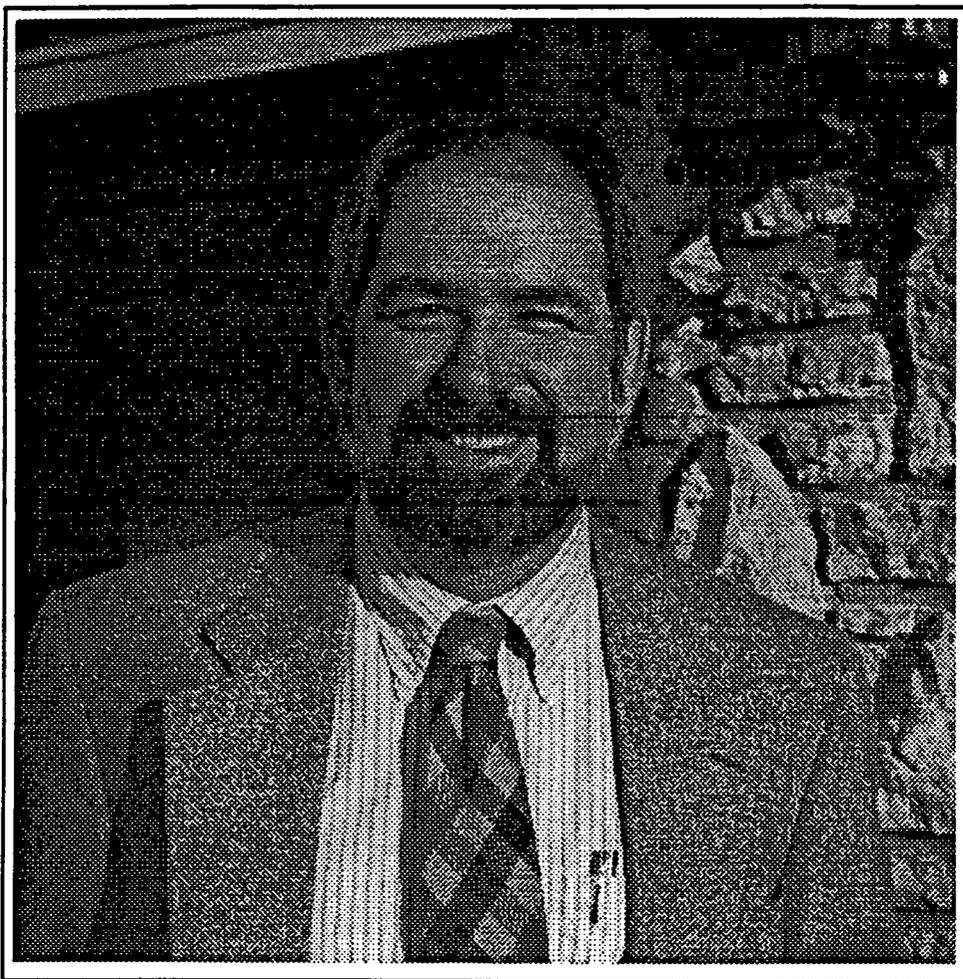
"Doug Sarno and Alice Shorett have been leaders in developing comprehensive cleanup strategies. Fernald will be a model for the cleanup of other DOE sites, and it is appropriate that Doug and Alice are part of that effort. We are indeed fortunate to have them on board," Applegate said.

Sarno is an environmental analyst with experience in all facets of hazardous and radioactive cleanup as a project manager, environmental engineer, policy analyst, and facilitator. He has worked extensively on remedy selection and land use issues for the federal Superfund program, and Sarno has written

numerous articles on considering future use of sites in cleanup decisions and increased stakeholder participation.

Shorett recently provided facilitation, mediation, and consensus-building services to the Hanford Future Site Uses Working Group. This group of stakeholders was the first of its kind to address potential future land uses at a DOE defense facility. Shorett also has experience in conflict resolution, public involvement, and community participation, and has worked with federal, state, and local agencies on a wide range of projects.

Applegate has asked Sarno and Shorett to present the Fernald Citizens Task Force with a draft strategic plan at its January meeting. The overall plan will identify and prioritize the specific activities of the



John Applegate, chair, Fernald Citizens Task Force.

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Task Force over time, as well as set forth objectives for each Task Force meeting.

The consultants also will gather, analyze, and present relevant information to Task Force members to support deliberations on the strategic questions related to cleaning up the Fernald site.

The Fernald Citizens Task Force has been created to help guide cleanup at Fernald. The U.S. EPA, the Ohio EPA, and DOE collaborated to form the task force. It includes representatives of the constituencies affected by cleanup de-

isions, including residents, labor, local governments, and local businesses.

The objective of forming a task force is to seek consensus among these "stakeholders" concerning cleanup strategies, future uses of the Fernald site and other environmental restoration issues. U.S. EPA, Ohio EPA, and DOE have agreed to consider carefully the Task Force's recommendations in their decision making processes, though its recommendations are not legally binding.

The major concerns of the Task

Force, in addition to future land use, are: Where should radioactive and hazardous wastes present at the Fernald site be disposed? What should be the cleanup levels? What should be the cleanup priorities?

The Fernald Citizens Task Force will hold its next meeting from 9 a.m. to 1 p.m. Saturday, January 15, 1994, at the Meadowbrook, 2398 Venice Blvd., Ross, Ohio. The meeting is open to the public, and time will be reserved for the public to address the Task Force.

Contract awarded to dismantle Fernald's tallest building

FERMCO has awarded a contract to a Pennsylvania company to dismantle and remove the tallest and most visible production building at Fernald.

A \$1.8 million contract was awarded to Project Development Group, Inc., (PDG), to dismantle Plant 7. Constructed in 1953, the seven-story building will be removed from the site.

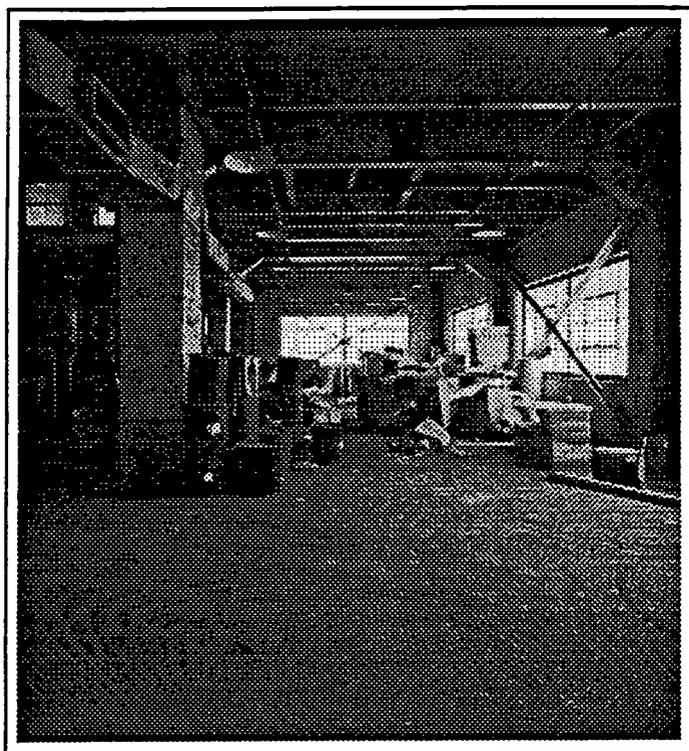
Plant 7 is the first of approxi-

mately 125 buildings planned for dismantlement at Fernald as part of the site's environmental restoration mission. PDG has subcontracted with Best Group, Inc., to remove all of the structural steel and concrete from the building.

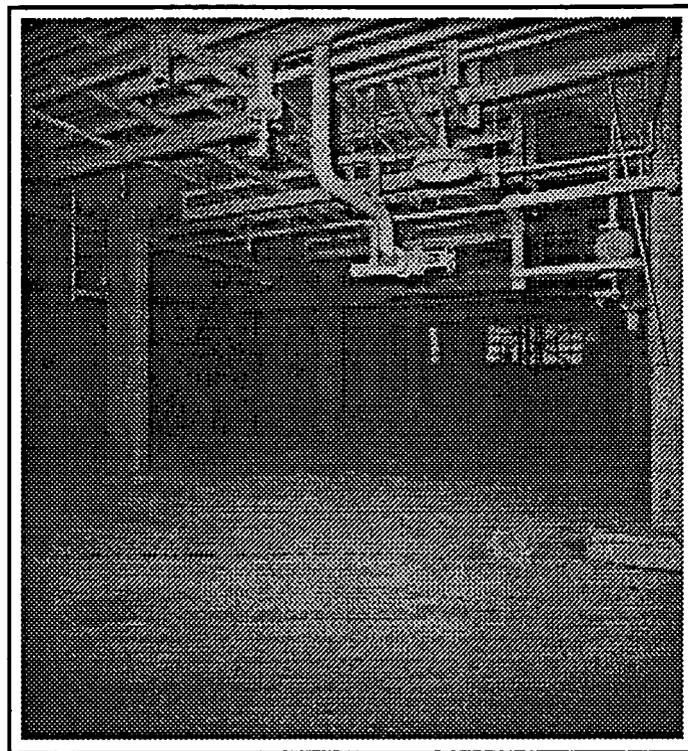
Dismantling Plant 7 will demonstrate new technologies to handle radiation and asbestos. If proven successful, the technologies will be used for future dismantling projects

at Fernald. Steel, concrete and other materials including approximately 700 tons of structural steel will be recycled for beneficial reuse.

PDG is scheduled to begin removing the interior walls of Plant 7 in February 1994, and the exterior asbestos-bearing transite siding in June 1994. Actual dismantling of the steel structure is expected to begin in August 1994.



Plant 7 as it appeared before workers cleaned out the building, washed it down and removed loose contamination.



Plant 7 as it appears today. The building is now ready for dismantling and work will begin in early 1994.

Shipping program deficiencies corrected

Six of the eight deficiency findings identified in Fernald's waste shipping program in August have been corrected to the satisfaction of the DOE-Nevada audit team. An

audit closeout meeting was conducted at Fernald October 29, 1993.

The six findings involved deficiencies in worker training records, shipping logs, procedures, and other

documentation related to Fernald's waste shipping and certification program. Fernald is approved to ship low-level radioactive waste to the Nevada Test Site (NTS) contingent

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upon meeting all NTS Waste Acceptance Criteria.

Shipments of contaminated trash remain suspended. During the closeout meeting, auditors said they are pleased with Fernald's corrective action plan for contaminated trash, but more time is needed to see how the plan works before contaminated trash shipments can resume. This finding involved prohibited materials -- such as non-punctured aerosol spray cans -- being in the vicinity of the contaminated trash baler. Auditors are tentatively scheduled to return to Fernald for a follow-up meeting in February 1994. Approval to resume shipping contaminated trash is expected at that time.

The other finding that remains open involves asbestos. While the audit team has approved of Fernald's corrective action plan to address free liquids in asbestos shipping containers, this finding also remains open pending a policy decision by DOE-Headquarters on whether the NTS can accept Fernald's regulated asbestos. DOE-Nevada is awaiting a headquarters determination on regulatory issues regarding the disposal of regulated asbestos.

In related news, Fernald submitted a revised shipping application to DOE-Nevada in December 1993, for review. Approval of this application, along with successful resolution of all DOE-Nevada au-

dit findings, will allow Fernald to continue shipping currently approved wastes. It will also allow for shipment of new waste streams including thorium, metal melt slag from scrap metal recycling projects, and depleted uranium metal. These approvals are now projected for February 1994.

Fernald's waste shipping goal for Fiscal Year 1994 is 79,000 drum equivalents of backlog residues, construction and Removal Action waste, process area scrap metal, contaminated trash, thorium and depleted uranium metal. Since October 1, 1993, Fernald has made approximately 100 waste shipments to NTS.

Fernald hosts Technology Demonstration Day

DOE and FERMCO hosted a Technology Demonstration Day November 30, 1993, to show cleanup progress and state-of-the-

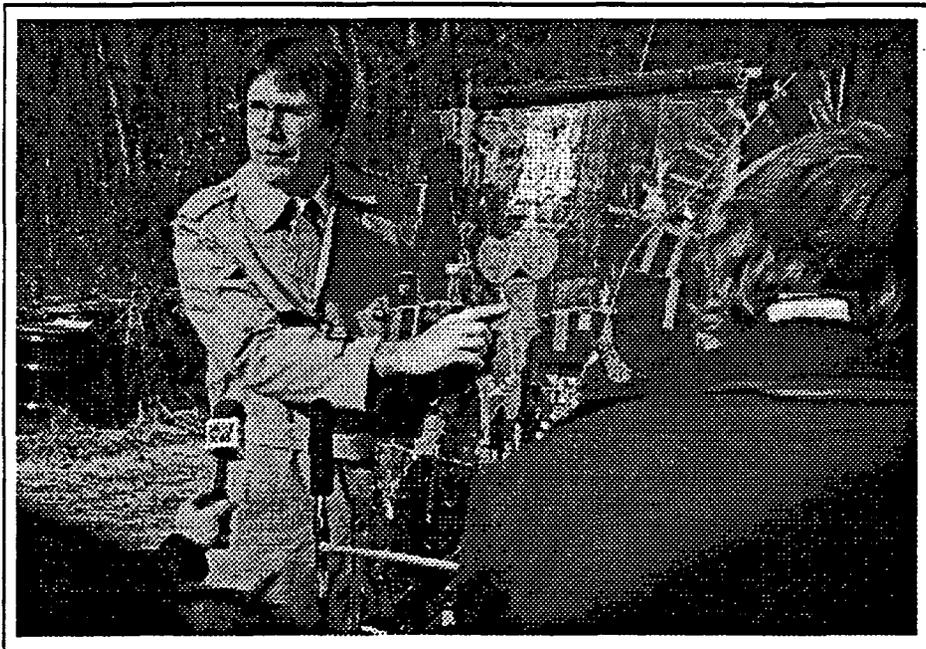
art technologies being employed at Fernald to carry out the environmental restoration mission.

Representatives from the local

media and dignitaries from the state of Ohio, DOE, and the U.S. Environmental Protection Agency were on hand to get a visual feel for progress at Fernald. Featured technologies included South Plume pumping, Minimum Additive Waste Stabilization (MAWS), Soil Decontamination Pilot Plant, Horizontal Grout Barrier, Micro Purge, Asbestos Decomposition, Plant 1 Ore Silos, and Solid Block Modeling.

A driving tour was provided and stops were made at each of the technology demonstration sites, where subject experts gave presentations and answered questions. Following is a general overview of the

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FERMCO's Dave Brettschneider talks to news reporters and visitors about the South Groundwater Contamination Plume, one of the featured stops on Technology Demonstration Day.

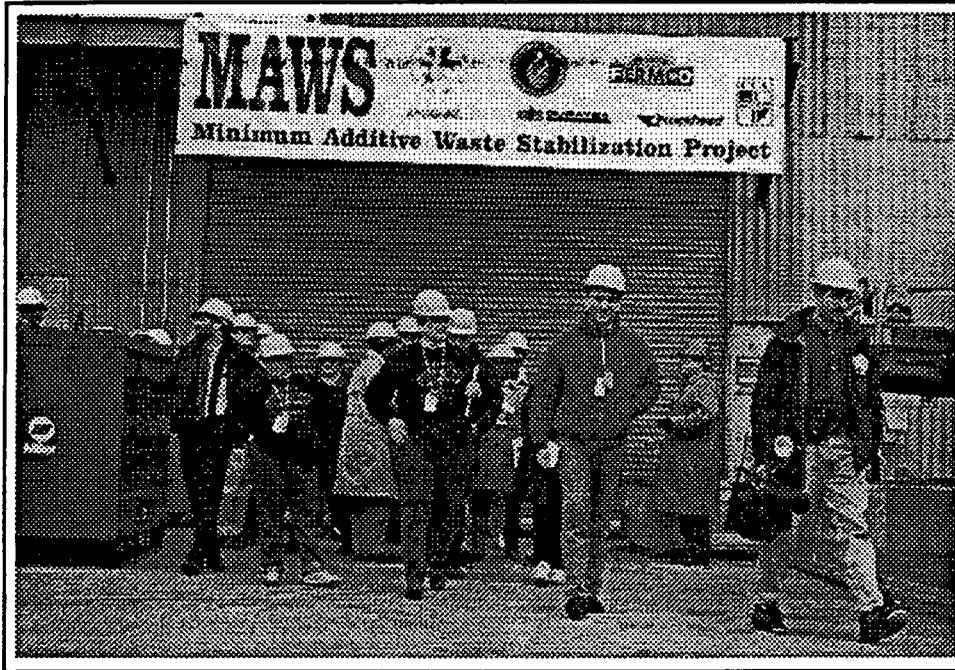
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featured technologies:

■ The Minimum Additive Waste Stabilization (MAWS) program at Fernald is designed to demonstrate that vitrification can be an economical treatment alternative for the large volumes of low-level radioactive and mixed waste which are present at Fernald. MAWS combines vitrification, water treatment and soil decontamination processes to potentially save millions of dollars in cleanup costs through achieving waste minimization. The MAWS program is designed to blend waste materials from Fernald's waste pits with contaminated soils and, through the use of electricity, melt them into a stable glass form which is safe for permanent disposal.

■ All 14 of the Plant 1 Ore Silos and their support structures are being dismantled as Fernald's first major dismantling project is under way. As workers tear down the concrete silos, they are cutting the pieces of concrete, steel and piping inside a building equipped with high-efficiency particulate air filters to minimize the spread of potential contamination, and packaging them for waste disposal. Deteriorated valves caused the silos to leak raffinate material onto an elevated concrete pad beneath them

in February 1991. The material is the waste residue from the processing of uranium ore after uranium is removed. This project is on schedule for completion in December 1994.

■ Fernald is now removing uranium-contaminated groundwater from an area south of the site. The extraction wells and associated piping system for South Plume pumping will protect human health



Visitors leaving Plant 9 after seeing a demonstration on how waste can be transformed into glass.

by intercepting the the plume, and thereby limit the spread of contamination in the aquifer. The groundwater force main directs extracted South Plume groundwater to the Fernald site for monitoring, aeration, and discharge to the Great Miami River. Operation of additional wastewater treatment systems at Fernald will offset any additional uranium discharged to the river as a result of the South Plume pumping activity.

■ A Soil Decontamination Pilot Plant has been constructed at Fernald to perform further testing

after successful bench-scale studies were completed. Two types of soils which were contaminated by different processes are being run through the pilot plant. Small amounts of soil contaminated by runoff from the Plant 1 Pad area, and small amounts of soil contaminated by air deposition from the old incinerator area, have been run through the system for uranium removal. This is accomplished by

physical separation followed by chemical extraction.

■ Treatability studies are being conducted at Fernald on a process designed to destroy asbestos fibers. Fernald is evaluating an asbestos decomposition process in which asbestos fibers are placed in a solution that decomposes the fibers

into a non-toxic silica material which destroys the asbestos and is no longer fibrous. Asbestos contaminated with uranium at Fernald would still be considered radioactive waste following this process, but it would greatly reduce the volume of waste requiring disposal. That is significant because Fernald has about two million square feet of asbestos on site. Asbestos mixed with portland cement formed the transite material which comprises the roofing and siding of most of Fernald's former production buildings. Asbestos also was used to

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insulate the 13 miles of associated piping in those buildings. This process is being studied by Operable Unit 3 and Clean Air Program personnel for potential application at Fernald. Preliminary results are favorable.

■ Fernald is evaluating a new groundwater sampling technique called "micro-purging" that is both cost effective and minimizes the generation of wastewaters. This technique ensures minimal well flow disturbance and no drawdown during sampling. Sample accuracy and precision are improved as low flow pumping can eliminate mixing and dilution effects on the concentration of contaminants. Decontamination of sampling equipment is not required for dedicated equipment and in-line disposable filters. Advantages are improved

sample quality and cost savings through waste minimization and increased program efficiency.

■ "Solid Block Modeling" involves the use of computers to generate three-dimensional "pictures" which show the location and extent of contamination at various Fernald locations. Solid Block Modeling is useful in improving characterization efforts to gather information on the amounts and types of contamination at Fernald, where it is located, and whether or not it is spreading to other areas. Solid Block Modeling constructs three-dimensional models combining existing sampling data with information on the geology of the site. It provides the necessary tools to make decisions on where and how much remediation is needed and what cleanup methods will be the

safest and most effective.

■ Horizontal Grout Barrier is an innovative technique designed to place an impermeable barrier layer beneath leaking waste sites, failed storage tanks, uncontrolled dumps and spill sites to provide an artificial "bottom." The technology uses a high-pressure pump that feeds a cement/grout mix to a horizontal "grouting bar" tool. As the grouting bar moves forward, the high-pressure grout erodes the soil surrounding the grouting bar and mixes with it. This leaves behind a soil-cement layer that cures to form a thick slab. These slabs can be joined side to side to form a wide "bottom." Existing technologies for vertical barriers can then be used to complete containment structures.

Safety problems halt Plant 1 Ore Silos project

The Plant 1 Ore Silos dismantling project has been temporarily suspended to address safety issues involving hoisting and rigging operations and trench digging around live electrical wires. The safety issues will be resolved and worker retraining will be completed before the project is restarted. The restart is projected for late-December 1993 or early 1994.

A piece of a concrete cone from one of the concrete silos was dropped about two inches to the ground when a "choker" broke loose from the crane inside the project's

size reduction building. The incident occurred as workers were moving the cone into position to cut it into smaller pieces. A "choker" attaches to the end of the crane and ties to the object being picked up.

In a separate incident on the same project, a live electrical wire was cut in a trench south of Plant 1. This incident occurred December 6, 1993, as workers were preparing to install scaffolding. Neither incident resulted in worker injury.

Dismantling of the concrete silos began in September 1993. This work involves tearing down the si-

los and cutting the pieces of concrete, steel, and piping into smaller pieces and packaging them for waste disposal. Workers were in the process of removing and cutting the 10 concrete silos, and erecting scaffolding around the four larger tile silos to be dismantled, when the project was suspended.

All 14 silos and their support structures will be dismantled under this CERCLA Removal Action. The project is scheduled for completion in December 1994.

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Plant 1 plutonium incident investigated

FERMCO is continuing an investigation of a June 1993 incident in which traces of plutonium were detected during a routine inspection of overpacked drums in the Fernald Plant 1 mill area. The drums contained common waste materials such as gloves, glass jars, rags, and wood.

The presence of plutonium was discovered through routine air sampling activities, but the levels detected were not expected to result in any contamination of personnel working in the area. However, precautionary urine samples were taken for seven Fernald workers -- two who were directly involved in the inspection and five others who were in the general area at or near the time of the inspection. Results of the initial urine analysis for the

seven workers produced three samples with evidence of plutonium; however, no internal contamination was detected from in vivo (lung) measurements.

Two additional sets of urine samples and two sets of fecal samples, which are sensitive indicators of plutonium exposure, were then collected from the workers. These samples were submitted both to the laboratory, which had detected plutonium in the original three samples and a second independent laboratory. Results of the analysis from the original laboratory have been received and do not indicate the presence of plutonium. Results from the second independent laboratory have not yet been received.

During the course of this inves-

tigation, three other employees requested that they be tested for exposure to plutonium. Two sets of urine and fecal samples were also collected from each of these employees. The results of the first urine samples for these three employees did not indicate the presence of plutonium. The results of the other samples have not yet been received by FERMCO. In addition, in vivo measurements performed on these employees did not detect any internal contamination.

To date, FERMCO has been unable to determine the source of the plutonium contamination. FERMCO continues to meet with the workers involved to discuss the status of the investigation and answer their questions.

Arsenic discovered in South Plume monitoring wells

FERMCO has reduced the pumping rates in five recovery wells which began extracting uranium-contaminated groundwater in an area south of the Fernald site in August 1993. The pumping rates were reduced after monitoring results -- generated from wells south of the extraction wells -- indicated increased levels of arsenic and phosphorous. FERMCO has determined that the recovery wells may be drawing water from a contamination plume located south of the recovery wells. This plume of arsenic and phosphorous contamination is not associated with the Fernald site.

On December 1, 1993,

FERMCO received three rounds (samples collected during the weeks of September 6, 13, and 20) of laboratory results for 15 of the wells that are sampled regularly to monitor the performance of the South Groundwater Contamination Plume Removal Action recovery wells. A review of the results of the analyses indicated that three monitoring wells located from 300 to 1000 feet to the south of the recovery wells showed an increase in the concentration of arsenic. Two of those three wells and one other well showed an increase in total phosphorous. Phosphorous and arsenic are indicator contaminants associ-

ated with an industrial site located on Paddy's Run Road.

FERMCO, after a technical review of the situation with the DOE and the Ohio EPA, reduced the existing 400 gallon per minute (gpm) well pumping rate on each of the five recovery wells to 300 gpm on December 3, 1993. This is consistent with the approach discussed in the U.S. EPA-approved Design Monitoring Evaluation Program Plan which is used to regulate the pumping scheme.

The groundwater quality conditions in the vicinity of the recovery wells will continue to be closely monitored during the operation of

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the pumping system at the revised flow rate. Monitoring wells south of the recovery wells will be sampled weekly and analyzed in the Fernald laboratory to provide

timely detection of arsenic or other contaminants.

The early detection of the arsenic and phosphorous illustrates that the monitoring system is func-

tioning as designed. Allowances were made in the pumping rates to accommodate such findings, and to modify the system if necessary.

Recycling program takes spotlight

The planned demolition of a former production building could place Fernald at the forefront of a national DOE initiative to develop recycling and beneficial reuse programs.

Plant 7, the tallest and most recognizable building within the former Fernald production area, will be the first building to be dismantled in an on-going cleanup process.

As part of the Plant 7 dismantling project, Fernald intends to recycle approximately 700 tons of structural steel. The recycling sub-

contractor selected will be given the option to provide waste containers back to Fernald that are fabricated from either DOE contaminated metal or virgin metal equal in weight to Fernald metal decontaminated for free release. These containers would be used in future Fernald waste shipping programs.

The program supports the "beneficial reuse" concept whereby metal that cannot economically be decontaminated is used to fabricate products where slight volumetric contamination is not a detriment.

A recycling workshop was held near Fernald in October 1993. The focus was on sharing innovative recycling initiatives with other DOE cleanup sites. The workshop focused on recycling metal, transite and concrete. The cost-benefits of recycling over disposal were discussed.

The goal is to recycle structural waste and reduce the need to mine additional ore, save energy during metal production, and conserve space at DOE-owned waste disposal sites.

Resource Center supporting laid-off workers

About 62 percent of FERMCO employees who were affected by a Reduction in Force in October 1993 have found other jobs, started their own businesses, retired, or have enrolled in school. This percentage exceeds national and local industry averages for outplacement.

As of December 10, 1993, 26 of

the affected employees have been re-hired to other jobs within FERMCO; 28 have found jobs outside of FERMCO; 12 are self-employed; 35 retired; and 46 are going back to school with FERMCO paying the cost.

Ninety-four of the approximately 250 affected employees were

still actively seeking employment seven weeks after the reduction in force. The Resource Center FERMCO established to provide outplacement assistance to affected employees remains open and is actively being used.

Liquid mixed waste shipped for incineration

The last of four shipments comprising Fernald's inventories of tributyl phosphate and di-amyl, amyl phosphate extraction solvents have been shipped to a facility in Oak

Ridge, Tenn., for incineration.

Under the inventory reduction program, a total of 16,000 gallons of the liquids used for uranium and thorium purification during the pro-

duction years at Fernald have been shipped since April 1993. The final shipments were made November 16, 1993.

Under Resource Conservation
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Continued from page 10 and Recovery Act (RCRA) guidelines, characteristics such as ignitability and lead content made these liquids unsafe for on-site storage. As a RCRA regulated hazard-

ous waste requiring treatment and disposal, the waste could not continue to be stored at Fernald.

These waste solvents had been stored in tanks located on the north side of the Plant 2/3 refinery and to

the southwest of the old Pilot Plant.

Fernald plans to ship more liquid wastes to the Oak Ridge facility for incineration in 1994 and 1995.

RI/FS milestones on target

Environmental investigations are complete for three of the five study areas targeted for cleanup at Fernald.

All field and analytical work is complete for Operable Units 1, 2, and 4. This information-gathering and study phase is necessary to determine the nature and extent of contamination -- including potential pathways for contaminant migration into the environment -- so that appropriate cleanup alternatives can be developed and implemented.

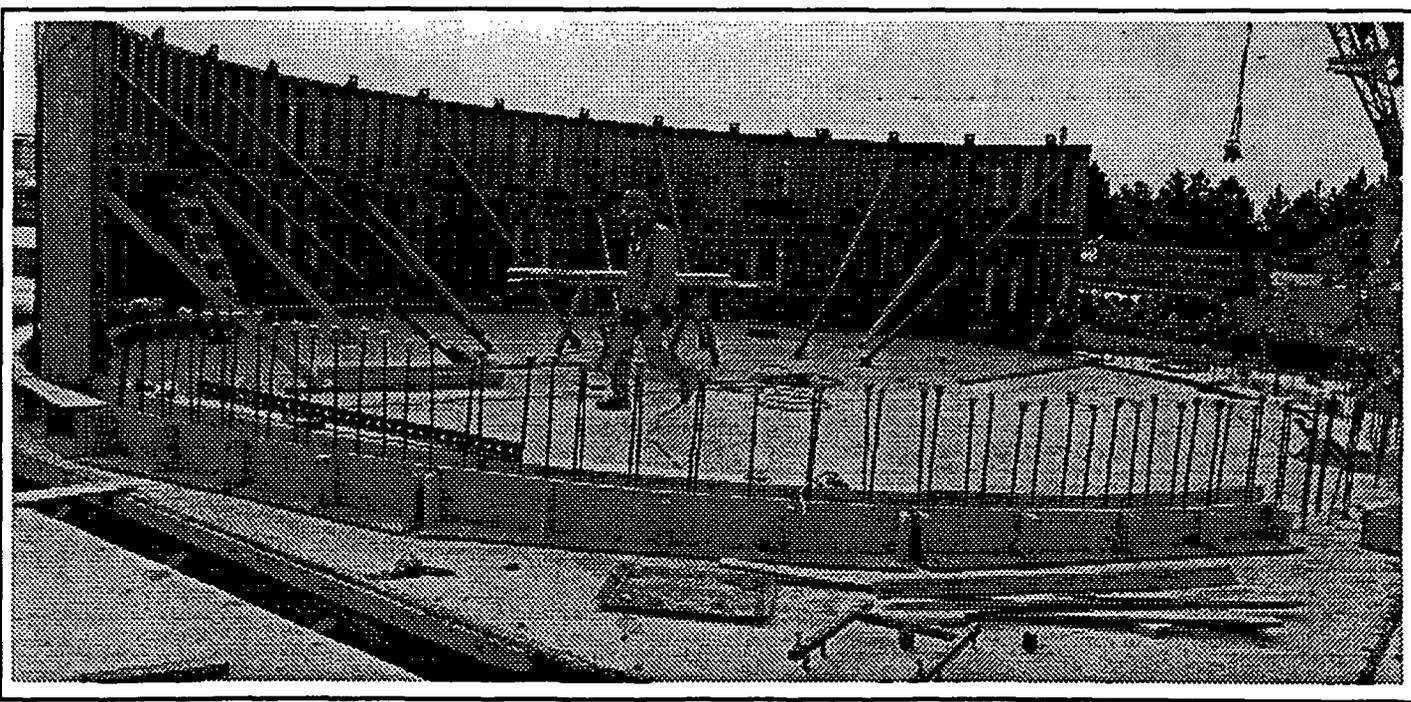
DOE and FERMCO are addressing EPA comments on the Re-

medial Investigation (RI) report for Operable Unit 1. The Feasibility Study (FS) report for Operable Unit 1 is on schedule for submittal to the U.S. and Ohio EPAs in March 1994. The FS report will include a discussion of the results of all treatability testing conducted on waste pit materials.

The U.S. EPA has conditionally approved the RI report for Operable Unit 4. The final RI report responding to EPA comments has been submitted to EPA for review and approval. DOE and FERMCO are presently addressing EPA comments on the Operable Unit 4 Fea-

sibility Study (FS). The revised FS report is scheduled to be resubmitted to EPA in late December 1993, for review and approval.

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|---------------------------------------|
| Operable Unit 1 - Waste Pit Area |
| Operable Unit 2 - Other Waste Units |
| Operable Unit 3 - Production Area |
| Operable Unit 4 - Silos 1-4 |
| Operable Unit 5 - Environmental Media |



Construction of Fernald's Advanced Wastewater Treatment system is in progress. The system will be used to remove uranium from wastewater and contaminated groundwater extracted from the South Plume.

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**FERNALD PROJECT
CLEANUP REPORT**

**U.S. Department of Energy
Fernald Field Office
P.O. Box 398705
Cincinnati, Ohio 45239-8705**

Fernald Project Cleanup Report is prepared by Fernald Environmental Restoration Management Corporation periodically for the U.S. Department of Energy, to inform the community about cleanup progress at the Fernald Environmental Management Project.

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