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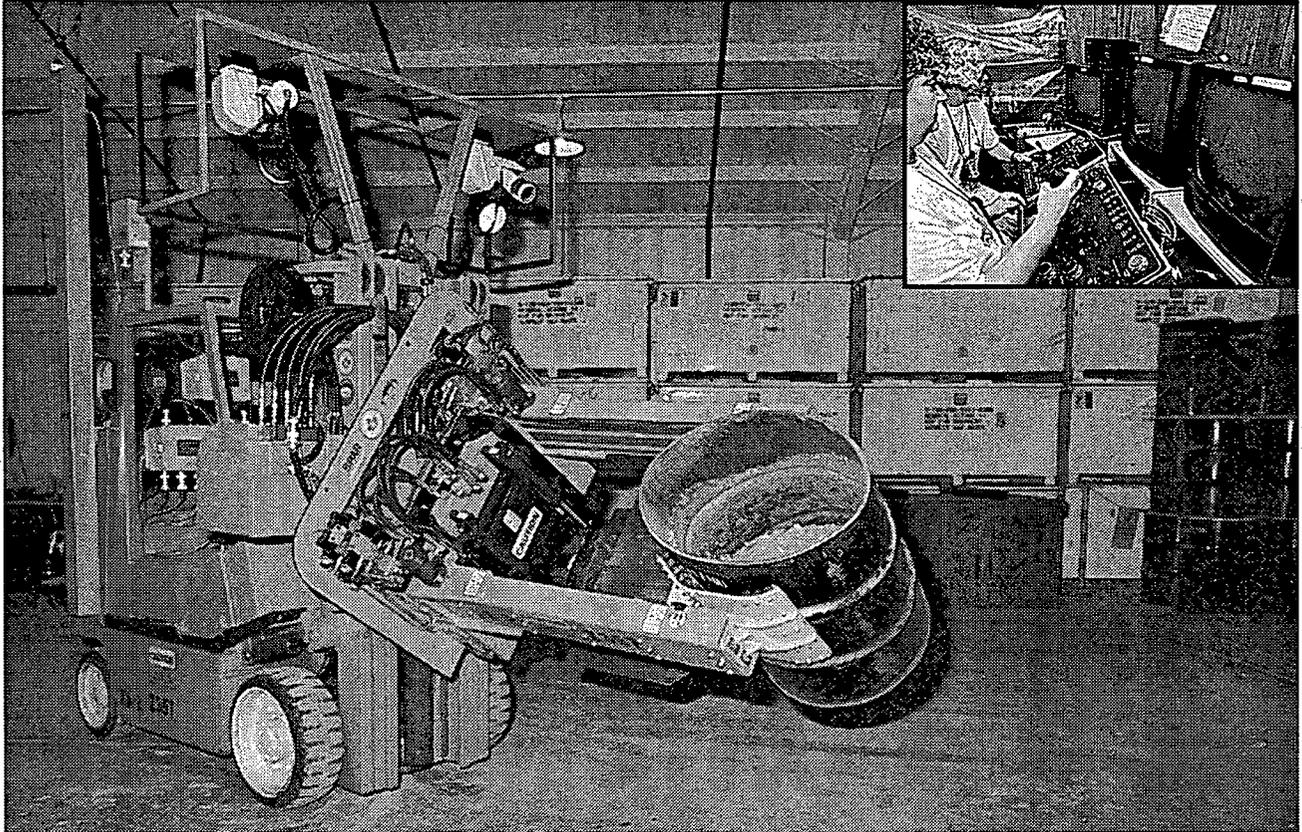
**FERNALD REPORT - JANUARY 1997**

**01/01/97**

**DOE-FEMP      PUBLIC**  
**12**  
**FACT SHEET**

# Fernald Report

January 1997



*FEMP File Photos 6014-335 and 6014-479: During the Thorium Overpacking Project, FEMP workers have achieved a 75 percent dose reduction by implementing numerous productivity improvements suggested by workers in the field. In the photos above, workers operate a forklift, which handles the drums, via remote control.*

## Thorium Overpacking Project Workers Reach Halfway Mark

Fluor Daniel Fernald is more than halfway through a tedious effort to overpack some 5,600 deteriorated drums of thorium for safe transportation and permanent, off-site disposal. As of mid-January 1997, approximately 3,000 drums had been safely overpacked. The two-year operation, targeted for completion in April 1998, is well ahead of schedule. In fact, DOE and Fluor Daniel Fernald anticipate the project will be safely completed as early as the fall of 1997.

Productivity improvements suggested by workers and implemented by DOE and Fluor Daniel Fernald are translating directly into a safer, faster and less-costly Thorium Overpacking Project at the Fernald Environmental Management Project (FEMP).

The Fernald Atomic Trades and Labor Council (FAT&LC) has been working closely with project managers, providing suggestions to improve the work processes and minimize worker exposure to radioactive thorium. "As a result, what we're realizing overall is a safer project, a shortened schedule and a significant cost savings," said John Bradburne, Fluor Daniel Fernald president. *continued on page 4*

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FEMP File Photo 6385-110: An evaluation of an incident at the Vitrification Pilot Plant is being conducted. Three teams have been formed in response to the event.

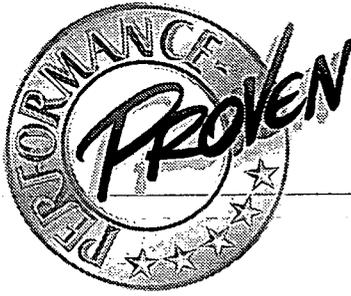
## Independent Review Team Holds Second Meeting Regarding Vitrification

To support the Operable Unit 4 (Silos Project) path forward, a team of experts has been assembled to serve as an advisory group and technical resource. The Independent Review Team (IRT) will be providing advice/recommendations to DOE and Fluor Daniel Fernald to aid in the decision-making process concerning the treatment of the waste in the silos by vitrification or an alternative treatment. The IRT's second group meeting was held Dec. 12 and 13 and included DOE and Fluor Daniel Fernald personnel, representatives of FEMP stakeholder groups, and regulatory agencies. At the meeting, presentations were made by the six technical committees established to develop information and estimates required to support evaluation by the IRT. The third meeting of the IRT was held Jan. 21 and 22.

On Dec. 26, a breach in the melter shell at the Vitrification Pilot Plant (VitPP) resulted in a leak of non-radioactive, molten glass in the furnace that drained into a container permanently staged for such a contingency—to capture leakage. Approximately 1,300 pounds of the molten material drained along a piece of equipment, missing the container and spilling onto the floor.

The VitPP is being operated to provide data relative to the feasibility and design of a full-scale vitrification facility. This incident will provide additional data to be factored into the overall path forward for the Silos Project. Most importantly, the incident was effectively managed and resulted in no threat to worker or public safety. An evaluation is being conducted to determine why the leak occurred; it is expected to take at least four weeks to complete.

In response to this event, DOE and Fluor Daniel Fernald have formed three teams: the Data Analysis and Path Forward Team; the Incident Analysis Team; and the Safety Review Team. In addition to DOE and Fluor Daniel Fernald members, the teams include representatives from private industry, FEMP work force, regulatory agencies, DOE Field Office, and FRESH. The teams expect to complete their analysis by the end of January and will be working closely with the IRT.



## Fernald Task Force Receives High Ratings in Site-Specific Advisory Board Evaluation Survey Results

The Fernald Citizens Task Force consistently received high ratings in most survey categories documented in the recently published *Site-Specific Advisory Board (SSAB) Initiative Evaluation Survey Results*, the product resulting from a collaboration with key participants in the SSAB initiative at DOE-Headquarters and DOE sites. The intent of the evaluation was to facilitate awareness of and attention to issues affecting SSAB effectiveness and success and to enhance key participants' abilities to improve the performance.

The Social and Economic Sciences Research Center (SESRC), at Washington State University, Pullman, Wash., administered the survey. SSABs at the FEMP and DOE sites in Hanford, Idaho, Los Alamos, Utah, Nevada, Texas, Colorado, California, South Carolina, and Missouri participated in the survey.

Two components comprised the SSAB Initiative evaluation: a self-evaluation conducted by each site SSAB and a survey conducted by DOE-Headquarters.

A total of 580 SSAB Initiative participants, including all SSAB board members, ex-officio board members and DOE Area/Field Office and regulatory staff members associated with the SSAB Initiative, received a "long version" of the survey to complete. A shorter version of the survey was mailed to 30 DOE-Headquarters staff and 236 members of the public who had attended SSAB meetings. Respondents returned 380 long-version surveys (66 percent response rate) and 164 short-version surveys (62 percent response rate).

Fernald's SSAB achieved 100 percent agreement from survey respondents in the following categories:

### **Facilitate Interaction and Exchange of Information and Viewpoints Regarding DOE Site Issues**

- a.) Facilitates exchange of viewpoints;
- b.) Contributes to board understanding;
- c.) Contributes to DOE/regulator understanding;
- d.) Contributes to constructive relationship;
- e.) Gives fair consideration to dissent;
- f.) Makes effort needed to learn about issues;
- g.) Invites expert advice; and
- h.) Creates supportive climate.

### **Group/Team Work Skills**

- a.) Understands goals and philosophy of board;
- b.) Does all to help achieve objectives.

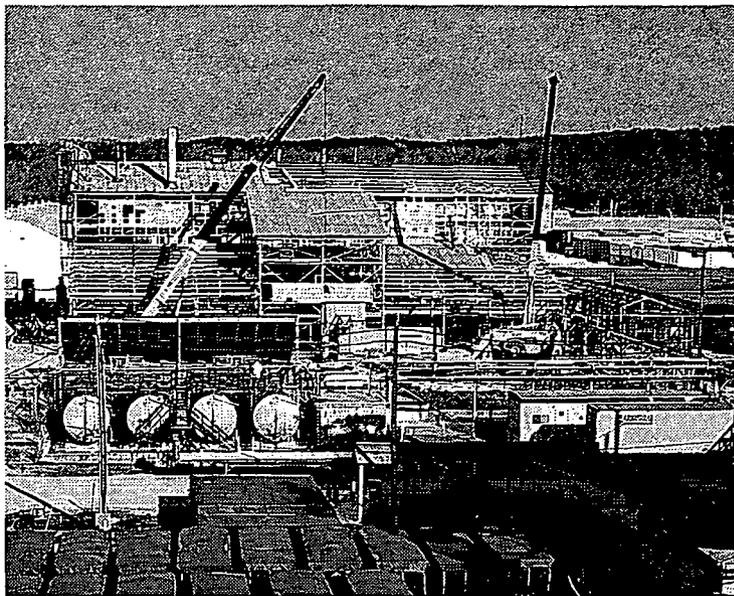
### **Provide Useful Advice and/or Recommendations to DOE**

- a.) Provides useful advice to DOE;
- b.) Reaches agreement on key issues;
- c.) Addresses issues in a timely manner; and
- d.) Reaches consensus on key issues.

### **Working Relations**

- a.) Maintains well-established working relationships;
- b.) Accepts values important to group;
- c.) Shows respect for viewpoints of others;
- d.) Willingly accepts goals and expectations.

Referring to the Fernald Citizens Task Force's achievement of such positive, high ratings by survey respondents, DOE Public Information Director Gary Stegner said, "It's a testament to the focus of the task force, the dedication of the task force members, the leadership of Chair John Applegate and the capable staff assistance provided by Doug Sarno."



FEMP File Photo 6080-509: The Plant 1 implosion is scheduled in February, assuming weather conditions remain stable enough to complete final D&D work and install the explosives.

## Plant 1 Implosion Scheduled in February

Babcock and Wilcox (B&W) and its specialty demolition contractor Controlled Demolition Incorporated (CDI) are planning to implode Plant 1 in February, assuming weather conditions remain stable enough to complete final decontamination and dismantling (D&D) work and install the explosives on the steel superstructure. "B&W and CDI will use linear-shaped charges like they used on Plant 7 and Plant 4 to weaken the steel members and cause the structure to collapse," said Fluor Daniel Fernald Project Manager Terry Borgman.

Some of the benefits of imploding the structure, compared with other demolition approaches, include:

- reduces radiological contamination exposure to the workers;
- minimized environmental and personal exposure to lead-based paint;
- reduced worker exposure to high elevations; and
- shortened the overall schedule, which reduces the cost of the project.

### Call 648-6272 for Up-to-Date Information Regarding the Plant 1 Implosion

For up-to-date information on the Plant 1 implosion, stakeholders are encouraged to call the FEMP Community Access Line, 648-6272, beginning in February. Fluor Daniel Fernald will update the message line regularly as the D&D project progresses. The line is available 24 hours daily.

## Thorium Overpacking *continued from front page*

Most importantly, DOE and Fluor Daniel Fernald have achieved a 75 percent dose reduction by implementing numerous productivity improvements suggested by actual workers in the field who are represented by the FAT&LC, Bradburne pointed out. "We also anticipate more than \$400,000 in direct cost savings as a result of completing the project ahead of schedule," he added.

Early completion will free two large buildings, which are currently sealed off for the Thorium Overpacking Project, and will make them available for other waste stabilization projects or for early dismantling as part of the overall effort to take down more than 125 buildings in the FEMP's 136-acre former production area.

Upon project completion, the FEMP intends to transfer the robotic forklift and associated equipment, as well as the technical know-how, to other projects at the FEMP or another DOE site, as deemed appropriate.

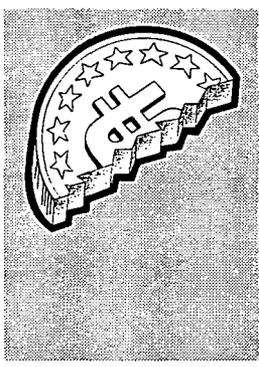
## FEMP Reaches Significant Cleanup Milestone

On Nov. 20, 1996, Ohio EPA approved the last of 13 clean closure certifications for Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Units (HWMU), resulting in a significant regulatory and cleanup accomplishment for the FEMP. Closure of the 13 HWMUs, which included a tank car, storage tanks, a dust collector and other equipment, were completed safely and in accordance with regulatory guidelines. Remaining requirements for RCRA HWMUs have been integrated into cleanup activities; no additional closure plans will be required. The FEMP will remove and dispose waste in accordance with approved records of decision, thereby reducing administrative requirements without sacrificing the effectiveness of cleanup.



## Next Fernald Citizens Task Force Meeting Is March 15

The regular bimonthly meeting of the Fernald Citizens Task Force was held Saturday, Jan. 11. Topics discussed included an update on the Silos Project, a discussion on the site recycling protocol, and a site schedule and budget update. The 1997 work plan was approved; it includes issues to be discussed and recommendations to be made during the upcoming year. The next task force meeting will be March 15, at 8:30 a.m., at the Alpha Building, just south of the FEMP.

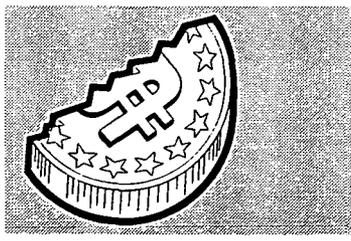


## FEMP's Technology Programs Successes Are Recognized

In December, DOE and Fluor Daniel Fernald personnel gave a presentation on the FEMP's Large-Scale Technology Demonstrations (LSTD) to the DOE-Federal Energy Technical Center (FETC), Morgantown, WV. Keeping with DOE and Fluor Daniel Fernald's commitment to continuous improvement, the presentation included a proposal for enhancing the benefit of the LSTD Program throughout FEMP projects, rather than limiting it to the Plant 1 Decontamination and Decommissioning work. DOE-FETC was receptive to the proposal and requested DOE and Fluor Daniel Fernald to proceed with an in-depth proposal description.

Fluor Daniel Fernald's Technology Programs Department was notified of an increase in funding for fiscal year 1997, bringing the overall LSTD Program funding to more than \$3 million. This action is a reflection of the FEMP's proven success in this area and shows the confidence DOE has in the program. DOE-FEMP Technical Program Officer Rod Warner said, "The Office of Science and Technology (DOE-OST) is very pleased with the effectiveness of the Fernald LSTD and with the number of successful technologies that we've demonstrated. They informed us in early December that they intend to invest another \$500,000 in the program, so we can continue with these efforts." The funding is to be provided by the Decontamination and Decommissioning Focus Area Program of the DOE-OST.

FETC management noted stakeholder involvement at the FEMP, along with the successes of the LSTD, were important factors in the decision to increase funding for fiscal year 1997.



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FEMP File Photo 6482-10: The monitor/VCR combination is used to visually inspect and record the contents of the process piping.

method for inspecting pipe is a simple, visual inspection of the interior to determine whether process residue is observable. The new technology demonstrated for pipe inspection at the FEMP involves a small monitor/VCR equipped with a tiny, light-bearing camera probe used to perform remote inspection and record results. The demonstration was intended to determine whether overall improvement could be achieved with the combined factors of safety, schedule and disposal costs.

### The Demonstration

Fluor Daniel Fernald selected sections of piping which have been removed from Plant 1 and are currently being stored at the site awaiting disposal at an off-site facility. Demonstration technologists applied the new inspection method to 48 sections of pipe, each less than 10 feet in length, and of various diameters ranging from 2.5 inches to 27 inches. The light-bearing instrument enabled high-fidelity observation of the entire interior of each section of pipe, with optional recording of the inspection results on videotape. The inspection results showed that 32 sections of pipe (67 percent) contained no visible process residue, and 16 sections (33 percent) contained residue. The sections with residue were packaged for off-site disposal and the sections without residue were prepared for lower-cost disposal in the FEMP OSDF.

### What the New Technology Means to Fernald

Results of the demonstration indicate the new camera probe technology provides a means for inspecting the interior of piping, and it meets the requirements of the optimal disposal method. This technology could be used at 67 FEMP structures. During decontamination and decommissioning, 117,138 linear feet of process piping in 15 of these structures will be removed. Assuming results similar to the demonstration, approximately \$459,000 in savings for the 15 buildings (67 percent of the 117,138 linear feet) could be realized by using this technology. The pipes inspected with the camera probe could be placed in containers for disposal in the OSDF, rather than sending them off-site for disposal. The cost to dispose 117,138 linear feet of process piping at the Nevada Test Site is approximately \$1 million.

## FEMP Pipe Inspection Successful

### Demonstration Objectives

In November 1996, Fluor Daniel Fernald Technology Programs completed the Process Piping Inspection Demonstration, one of several demonstrations being sponsored at the FEMP by the Decontamination and Decommissioning Focus Area Program of the DOE-OST.

Piping at the FEMP must be inspected to determine the method of disposal. Pipe inspected and observed to have no process residue may be scheduled for disposal in the On-Site Disposal Facility (OSDF), while piping observed to contain residues, as well as piping that cannot be inspected, must be slated for disposal at a much higher cost at an off-site disposal facility. The baseline



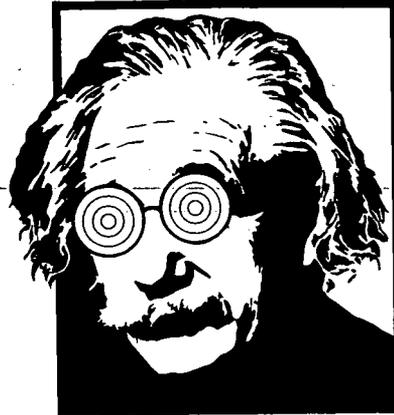
FEMP File Photo 6482-22: During the demonstration, a camera probe is inserted into a piece of pipe.

## Sixth Annual Greater Cincinnati Regional Science Bowl to be Held Feb. 1

On Saturday, Feb. 1, at Cincinnati State Technical and Community College, 32 teams representing high schools in Ohio, Kentucky and Indiana will compete in the sixth annual Greater Cincinnati Regional Science Bowl sponsored by the FEMP.

The competition will begin at 9 a.m. and will consist of oral question-and-answer rounds in which two teams attempt to outscore each other by answering questions correctly. The fast-paced contest will follow a double-elimination format, with no team being eliminated until it has lost two matches.

More than 50 employees from Fluor Daniel Fernald, the DOE-FEMP Office and the DOE Ohio Field Office volunteer their time to help with this fun, worthwhile event. The public is welcome to attend.



SCIENCE BOWL  
1997

### Stakeholders Encouraged to Call Fernald Contact!

Stakeholders are encouraged to call the Fernald Contact! interactive information line, which was established in August 1996 to provide FEMP team members with timely messages about the site and ongoing projects. Created for FEMP employees, Fernald Contact! also provides information and allows people to voice concerns and questions and to receive feedback on their input.



To date, Fernald Contact! has received more than 200 calls, and seven guest speakers have recorded messages. Fluor Daniel Fernald Public Affairs coordinates this program and monitors the phone line for comments daily. New messages are recorded weekly providing employees with an easy way to get information. Although Fernald Contact! was designed for FEMP employees, others interested in FEMP activities can also access the phone line by calling 513-648-5037. Anyone with suggestions or questions about Fernald Contact! should leave his or her name, phone number and comments after the pre-recorded message. Calls will be returned quickly.

### Fernald Community Group Participates in Strategic Planning Exercise

During January and February, the Fernald Community Reuse Organization (CRO) will participate in several working sessions to develop a strategic plan, which will be available for public comment.

The CRO will reconvene its regular monthly meetings, with public participation, on Tuesday, March 4. The focus of the March meeting will be a discussion of the draft strategic plan.

The Fernald CRO will provide recommendations to DOE on social and economic development issues resulting from downsizing at the FEMP. For more information call or write to:

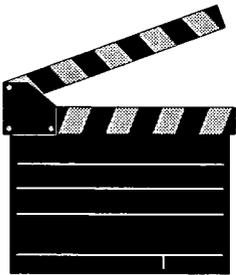
Fernald Community Reuse Organization  
P.O.Box 38  
Ross, Ohio 45061  
513-648-4168

## FEMP Establishes New Environmental Career Explorers Post



The FEMP has established a new Environmental Career Explorer Post for young men and women from the area to gain practical experience in careers, special interests, or skills related to the activities taking place at the site. By utilizing the post, students can gain knowledge before choosing a career, make business contacts with people in a field of their choice and meet other students who have similar interests. Seven local high schools—Ross, Harrison, Hamilton Badin, Fairfield, Princeton, Lakota, and Talawanda—are represented. Of the 30 students who have registered, more than half are female, which is a historically under-represented group in this area.

The group meets once or twice a month from October through April. Specific careers are targeted at each meeting, with an emphasis on hands-on experiences. So far this year, students have toured the site, learned about cultural preservation and sampling and joined other explorer posts for a ski outing. The end of the year will culminate in a recognition event, and each member will be given a certificate and letter to begin a resume file.



### “A Team In Transition” Video Now Available

The Multimedia Visual Services group, in tandem with “No Final Frontier” task force members, has recently completed a video that profiles six Fluor Daniel Fernald employees who have achieved excellence through customer focus, empowerment, teamwork, accountability, and innovation. “We wanted to make a video that wasn’t just a presentation on the values and how to incorporate them into your professional life,” said Jeff Wagner, Fluor Daniel Fernald Multimedia Visual Services team coach. “The producers all thought it would have more impact if the story was told by casual interviews with employees.”

The result is a 10-minute video featuring Jennifer Rhodes, Melissa Thomas, Columbus Henderson, Dennis Carr, Theresa Schomaker, and Barry Ko. Multimedia Visual Services personnel videotaped interviews with the subjects and followed each one around on a typical work day. Jennifer Rhodes, who works at the Receiving and Incoming Materials Inspection Area (RIMIA), even allowed cameras into the apartment she shares with her husband and two children at 5:15 a.m., so Multimedia Visual Services personnel could tape during her typical early morning routine. Fluor Daniel Fernald President John Bradburne also makes an appearance and discusses his views on the values and explain the name change, career banding, and Fluor Daniel’s vision for the future of the Fernald work force.

Fluor Daniel Fernald employee Theresa Schomaker carries out her evening duties as a Fernald Envoy to Crosby Township; Dennis Carr, Fluor Daniel Fernald vice president, conducts a staff meeting; Melissa Thomas enters the former process area to help oversee the Mixed Waste Stabilization project; Columbus Henderson moves pallets of office furniture with a fork truck at the Northstar warehouse; and Barry Ko brainstorms with other members of the Diversity Council.

Stakeholders can view this videotape at the Public Environmental Information Center, 10845 Hamilton-Cleves Road, Harrison (phone: 513-648-0164).

# FLUOR DANIEL FERNALD

## **Fluor Daniel Fernald Appoints New Director of Public Affairs**

Tricia L. Thompson has been appointed director of Fluor Daniel Fernald Public Affairs Department, succeeding Rick Maslin, who has been promoted to senior director of Public Affairs at the company's Government Services Operating Company (GSOC) in Washington, D.C. Maslin will be responsible for the strategic direction and management of public affairs issues for Fluor Daniel's GSOC and Fluor Corp., including oversight responsibility of public affairs activities of Fluor Daniel Fernald, Fluor Daniel Hanford, the partnership between Fluor Daniel and the Los Alamos National Laboratory, and the company's work for the Federal Emergency Management Agency.

The former manager of Fluor Daniel Hanford Public Affairs, Thompson joined Fluor Daniel's Marketing Communications group in 1992. In 1994, she moved to the company's Corporate Communications Department as a media relations specialist. Before joining Fluor Daniel, Thompson spent eight years with Coldwell Banker Residential Group, where she gained managerial experience in public relations, marketing and internal communications.

Maslin will remain involved with Fluor Daniel Fernald activities through his oversight responsibilities. Maslin's transfer to the GSOC will allow the unique lessons learned at Fernald to be shared and incorporated into activities at other government projects. To ensure a smooth transition, Maslin will remain at Fernald through January.

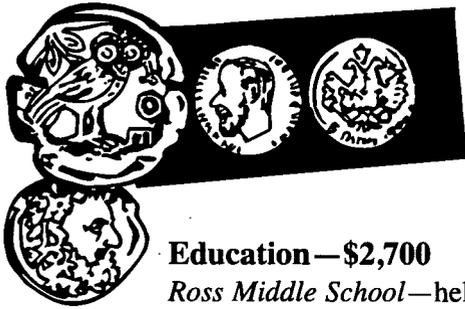


## **Fourth Series of Employee Roundtables Begins at FEMP**

The fourth series of employee roundtable meetings began September 1996 and continues through 1997. Employee roundtables are one-hour meetings held twice weekly with members of the Fluor Daniel Fernald Leadership Team

Every employee is invited to attend a roundtable at some point during the series. Surveys are conducted to obtain feedback on the forum. The purpose of these meetings is to provide Fluor Daniel Fernald employees the opportunity to discuss topics with members of the Leadership Team, their Human Resources generalist, the employee advocate, and other regular attendees.

Between September and December, Fluor Daniel Fernald conducted 19 employee roundtables. Approximately 500 Fluor Daniel Fernald employees attended roundtable meetings. Of those who attended a roundtable, 260 individuals completed surveys. According to the surveys, 87.5 percent of employees were satisfied with answers they received during the roundtable; 88.4 percent of employees found the meetings valuable.



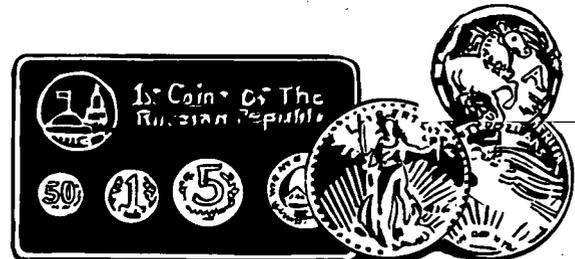
## November and December Fluor Daniel Fernald Corporate Contributions

### Education—\$2,700

*Ross Middle School*—help students attend Camp Campbell Guard for outdoor education.  
*Cincinnati State Technical and Community College*—support 1997 Science Olympiad.  
*Crosby Elementary School*—help sixth graders attend space camp.  
*William Henry Harrison Junior School*—help staff attend National Middle School Convention.

### Civic—\$700

*American Society of Mechanical Engineers*—support regional student conference.  
*Dayton Regional Minority Supplier Development Council*—support annual awards banquet.

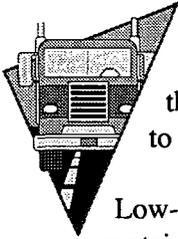


## Fluor Daniel Fernald Employees Participate in Jingle Bell Run

On Dec. 14, the Fluor Daniel Fernald running team had its premier race at the Jingle Bell Run. The first phase of the team's activities was a great success. The Fluor Daniel Fernald "A" Team raised \$563 for the Arthritis Foundation, the race sponsor, through raffle ticket sales and contributions.

The second phase, the run itself, was just as successful. The Fluor Daniel Fernald "A" Team placed 19th among 44 teams, in spite of an injury and an illness that reduced the team to three members—the minimum allowable number of runners.

## FEMP Waste Shipping Report



The volume, in cubic feet (cf), of low-level radioactive waste shipped to NTS for December 1996 was 8,166 (external). As of Dec. 27, 1996, the FEMP had shipped 43,011 cf (external) of low-level radioactive waste to NTS for fiscal year (FY) 1997.

Low-level radioactive waste volume reduction includes approximately 493 containers of legacy low-level uranium residue and 1,201 containers of thorium oxalates/hydroxides identified in *FY 1996 Inventory Reduction Plan for Legacy Wastes at the FEMP*.

During fiscal year 1997, the FEMP will direct efforts towards reducing legacy uranium residue and asbestos inventories and the thorium oxalate/hydroxide inventory in Building 65.

The volume of low-level radioactive waste materials per waste stream shipped to NTS in December 1996 follows:

<b>Waste Stream</b>	<b>External Vol. (cf)</b>
Process Area Scrap	0
Thorium Residues	6,755
Contaminated Trash	1,410
Construction	0

The volume of low-level radioactive waste materials per waste stream shipped to NTS in fiscal year 1997 (as of Dec. 27, 1996) follows:

<b>Waste Stream</b>	<b>External Vol. (cf)</b>
Process Area Scrap	1,109
Thorium Residues	19,288
Contaminated Trash	7,949
Construction	3,784
	4,126

***Fernald Report***

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