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FRIDAY MAILING

12/26/97

INCLUDED IN THIS MAILING ARE:

- Letter from Rob Portman to John Applegate (re: Recent Concerns of the Fernald Citizens Advisory Board)
- Letter from Rob Portman to Secretary Federico Pena (re: Defense Facilities Closure Projects and Injunction)
- Letter from James Melillo to Environmental Management Advisory Board and Committees (re: Holiday Greetings and Appreciation)
- Response to Query, December 22, 1997 (re: White Metal Box Leak)
- Technical Report Summary: Silo 3 Material Compound Analysis Final Report
- Technical Report Summary: Performance Agreement Between the President of the United States, William Jefferson Clinton, and the Secretary of Energy, Federico Pena
- Technical Report Summary: Technical Task Plan Mobilization, Extraction, and Removal of Metals and Radionuclides
- Technical Report Summary: Performance-Based Fee Plan End-of-Period Self Assessment
- Natural and Cultural Resources Committee Meeting Summary - November 24, 1997
- Waste Management Committee Meeting Summary - December 1, 1997
- Newsclippings

QUESTIONS:

Please call John a [REDACTED] or Doug a [REDACTED] with questions or concerns. You may also fax or e-mail us at:

John Fax: 281-3331
Doug Fax: 648-3629

E-Mail: john_applegate@law.uc.edu
E-Mail: [REDACTED]



FRIDAY MAILING

12/26/97

CAB MEETINGS:

- WASTE TRANSPORTATION COMMITTEE:** A meeting of the Waste Transportation Committee of the Fernald Citizens Advisory Board will be held on Monday, January 5, 1998, at 6:30 p.m. in the Jamtek Building, 10845 Hamilton-Cleves Highway.
- ENVIRONMENTAL MONITORING COMMITTEE:** The Environmental Monitoring Committee of the Fernald Citizens Advisory Board is tentatively scheduled for 6:30 p.m. on Wednesday, January 7, 1998, in the Jamtek Building.
- EFFICIENCY COMMITTEE MEETING:** The next meeting of the Efficiency Committee of the Fernald Citizens Advisory Board will be rescheduled at a later date.
- FERNALD CITIZENS ADVISORY BOARD MEETING:** The next meeting of the Fernald Citizens Advisory Board will be held on January 17, 1998, at 8:30 a.m. in the Alpha Building.

OTHER MEETINGS:

- COMMUNITY REUSE ORGANIZATION:** The monthly CRO meeting will be held on Tuesday, January 6, 1998, at 6:30 p.m. in the Ross High School Media Center, 3425 Hamilton-Cleves Highway.
- FERNALD CLEANUP PROGRESS BRIEFING:** The January Fernald Monthly Cleanup Progress Briefing will be held on Tuesday, January 13, 1997, at 6:30 p.m. in the Alpha Building, 10967 Hamilton-Cleves Highway.

QUESTIONS:

Please call John at [REDACTED] or Doug at [REDACTED] with questions or concerns.
You may also fax or e-mail us at:

John Fax: 281-3331
Doug Fax: 648-3629

E-Mail: john.applegate@law.uc.edu
E-Mail: [REDACTED]

ROB PORTMAN
SECOND DISTRICT, OHIO

COMMITTEE ON
WAYS AND MEANS
ASSISTANT MAJORITY WHIP

Congress of the United States
House of Representatives
Washington, DC 20515-3502

WASHINGTON OFFICE:
238 CANNON OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3156
rp@portman.house.gov

KENTWOOD OFFICE:
8044 MONTGOMERY ROAD
ROOM 540
CINCINNATI, OH 45225
(513) 791-0551

BATAVIA OFFICE:
175 EAST MAIN STREET
BATAVIA, OH 45103
(513) 733-2948

1-800-704-6366

December 16, 1997

Professor John S. Applegate
College of Law
P.O. Box 210040
University of Cincinnati
Cincinnati, Ohio 45221-0040

Dear John:

Thank you for sending me copies of your letters to Energy Secretary Pena and Assistant Secretary Alm about the Department's management restructuring as well as the WCS court case. I appreciate your sharing the Fernald Citizens Advisory Board's concerns with me on these issues.

I have written to Secretary Pena on behalf of the CAB urging that he consider these concerns and provide me with a report. Enclosed is a copy of my letter. As soon as I receive that information, I will be back in touch with you. I hope that this will be helpful.

Again, John, thanks for bringing these matters to my attention. Please stay in touch and let me know how I can continue to be of assistance.

Sincerely,
Rob
Rob Portman
Representative

RP/tm

Enclosure

ROB FORTMAN
Second District, Ohio

COMMITTEE ON
WAYS AND MEANS
ASSISTANT MAJORITY WHIP

Congress of the United States
House of Representatives
Washington, DC 20515-3502

WASHINGTON OFFICE
228 CANNON OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3164
portman@hr.house.gov

KENTWOOD OFFICE
8044 MONTGOMERY ROAD
ROOM 540
CINCINNATI, OH 45225
(513) 781-0381

BATAVIA OFFICE
175 EAST MAIN STREET
BATAVIA, OH 45103
(513) 732-2848

1-800-704-6388

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December 16, 1997

The Honorable Federico Pena
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Mr. Secretary:

I have received copies of the enclosed letters sent to you and Assistant Secretary Al Alm by Mr. John Applegate, Chairman of the Fernald Citizens Advisory Board (CAB). You may recall that the Fernald Environmental Management Project is located in the Second Congressional District of Ohio, which I represent.

Mr. Applegate indicates in his November 20 letter that since a stable funding source has been established under the Defense Facilities Closure account to accelerate the cleanup at Fernald, it is essential that DOE move aggressively to ensure that its management structure can more effectively and efficiently deal with the remediation.

As you are aware, the FY 1998 Energy and Water Appropriations Act calls for DOE to provide Congress with a detailed plan outlining a proposed management structure to reduce the numerous layers of federal bureaucracy through which closure projects must report. That plan is due shortly, and I am most interested in reviewing it. However, Mr. Applegate notes that the stakeholders have not had a formal role in the restructuring process. It would seem that with their shared experiences with the cleanup, the stakeholders would be a valuable resource to DOE, and should be involved in this process. In accordance with all applicable laws and regulations, I would like to strongly urge that DOE consider CAB's request, and I would welcome your comments on this matter.

Mr. Applegate's December 4 letter to you expresses concern about the pending court action between DOE and WCS, a waste contractor in Texas. He notes that if this matter is not resolved soon, it will have a negative effect on the cleanup. Also in accordance with all applicable laws and regulations, I would like to request that you take the CAB's concerns on this matter under advisement to ensure the remediation does not fall behind schedule and does not result in unnecessary costs to the taxpayers. I would appreciate any information that you could provide me on these concerns as well.

Thank you for your attention to these matters. I look forward to receiving your response.

Sincerely,

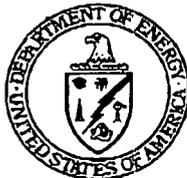


Rob Fortman
Representative

RP/tm

Enclosures

1180



Department of Energy
Washington, DC 20585

December 19, 1997

To: Members of the Environmental Management Advisory Board and Committees

Subject: Holiday Greeting and Appreciation

This is the third year I have the privilege of not only being able to wish you the best of holidays, but also to express my appreciation for all you have contributed to the Environmental Management Program. On a continuing basis, each of you has given much of your time helping us meet the many challenges associated with the Environmental Management Program, and collectively you have provided us with advice and recommendations which we have incorporated into our plans. This coming year, we face even greater challenges, and with your continued support, we'll meet those challenges.

On behalf of myself, the staff, and Al Alm, the happiest of holidays to all of you, our thanks for all you have done, and our wish for continued collaboration in the new year.

Warmest Regards,

James T. Melillo
Special Assistant to the
Assistant Secretary

**Response to Query -- Update
December 22, 1997
10:00 EST**

Incident Summary

- o At approximately 17:00 EST on Monday, December 15, 1997 a truck transporting depleted and slightly enriched uranium residues from the Fernald Environmental Management Project was en route to Mercury, Nevada. The truck left Fernald on Friday, December 12, 1997 at 9:00 EST.

- o The truck was transporting seven white metal boxes which contain depleted and slightly enriched uranium residues. There are three different types of material on the truck:
 - Sand used to filter wastewater prior to discharge to the Great Miami River. Because of the minimal radioactive contamination of this material, it is not regulated by the Department of Transportation.
 - Filter cake from wastewater treatment operations. This material is approximately 50 - 60 percent absorbed moisture in Dicalite.
 - Construction rubble from Plant 9, Special Products Plant, which may include furnace brick, mortar and concrete.

- o The driver last visually inspected the truck at Milan, New Mexico (approximately 370 miles from Kingman, Arizona) and did not notice any leakage.

- o As he was preparing for a routine stop in Kingman, the driver noticed fluid leaking from the trailer. He described the leak as "very slow." Preliminary visual inspection by the local fire department indicates that one to two gallons of fluid leaked from the trailer. The fluid is described as a clear liquid.

- o The driver notified the Fernald Emergency Duty Officer at 16:53 EST and the decision was made to move the truck off the road and park it adjacent to the Petro Truck Stop at Exit 66 in Kingman.

- o The Fernald Emergency Operations Center was activated at 17:18 EST to support the driver at the scene and notifications were made to DOE in Ohio and Washington, local and federal EPAs, local emergency responders, and key stakeholders.

- o The Kingman Sheriff's department was called to the scene at 18:10 EST and isolated the truck in a 100-foot exclusion zone. The exclusion zone was established to ensure the safety of individuals in the area.

- o DOE-Fernald requested a Radiological Assistance Program (RAP) team, a DOE resource equipped with the most up-to-date radiological monitoring equipment, from DOE-Albuquerque at 17:58 EST. Albuquerque is the closest radiological jurisdiction to the incident site. The RAP team monitored the truck to determine if the fluid was radioactive.

- o DOE-Albuquerque's RAP team departed for Kingman via plane and arrived in Kingman at 22:10 EST. The Arizona Highway Patrol transported RAP team to incident scene.
- o A team comprising representatives from DOE-Fernald and Fluor Daniel Fernald arrived in Nevada at 00:30 EST on December 16, 1997 and went directly to the incident site to investigate. They remained there throughout the night.
- o Initial notifications of these events were made to:
 - DOE-OH (Manager and Public Affairs)
 - DOE-HQ (Assistant Secretary, Deputy Assistant Secretary, Public Affairs, and Emergency Operations Center)
 - DOE-NV (Bob Becker and Public Affairs)
 - US EPA and Ohio EPA
 - Lisa Crawford, President, Fernald Residents for Environmental Safety & Health (FRESH)
 - John Applegate, Chair, Fernald Citizens' Advisory Board
 - Fluor Daniel and Fluor Daniel Fernald management

Initial Site Survey/Assessment

- o After monitoring the personnel involved in the incident and the exterior of the truck and finding no contamination, the RAP team accessed the interior of the truck at approximately 00:11 EST on December 16, 1997.
- o Initial surveys of the truck's interior showed no evidence of contamination or radiological hazard. There appeared to be a breach in one of the white metal boxes from which fluid was leaking.
- o A team from Fernald convened at the site at 10:00 MST to do a formal turnover to the DOE-Fernald representative. The turnover took place at 10:00 MST on December 16, 1997 and the RAP team returned to Albuquerque.

Cleanup/Repair Plan

- o DOE-Fernald team determined the leak was the result of a 2"x1/8" crack in the base of the white metal box nearest to the rear door of the trailer. The crack is located at the base of the box under the middle I-beam runner which elevates the base of the box off the floor.
- o In order to effect the repair with minimal disruption to the balance of the shipment, the Fernald team repaired the box in place on the trailer. This included raising the box with two 2"x4"s and sealing the crack with an epoxy patch. The box will remain in place overnight to ensure the patch is secure. Following coordination with NTS, the plan is to transport the shipment to the NTS (approximately 150 miles).
- o Residual fluid in the trailer will be cleaned up and residual material will be overpacked and transported to NTS with the subject shipment.
- o All shipments from Fernald of materials packed in white metal boxes will cease until the incident investigation is complete and any necessary corrective actions have been implemented.
- o Notification of the cleanup/repair plan was made to the group listed above.

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Cleanup/Removal Plan -- 12/17 Update

- o At approximately 9:01 EST on December 17, 1997 it was determined by a DOE-Fernald official that a second white metal box on the truck in Kingman, Arizona was leaking fluid.
- o DOE and Fluor Daniel Fernald are working with OH Materials, an independent emergency response company, OH Materials representatives are expected to arrive in Kingman at 20:00 EST to assess the site and determine the appropriate response actions. Response actions are expected to begin early on Dec. 18, 1997.
- o Response actions are expected to include unloading of the white metal boxes, securing the containers, and then reloading the boxes onto a pan trailer.
- o The reloaded truck will then transport all seven containers back to the Fernald site for detailed analysis and further investigation.
- o No additional shipments will be sent to the Nevada Test Site for at least two weeks. The Nevada Test Site will be closed for two weeks starting Thursday, December 18 due to the holidays.
- o Notifications of the current path forward have been made to the group listed above.

Cleanup Removal Plan -- 12/18 Update

- o OH Materials arrived in Kingman, Arizona at approximately 04:30 EST. on Dec. 18. At approximately 08:00 EST representatives from DOE-Fernald and OH Materials met to discuss a plan of action to address the situation.
- o OH Materials then began an initial entry into the truck to assess the entire situation. A 50ft. X 150ft. perimeter was set-up around the truck with yellow "caution" tape. Two representatives from OH Materials entered the truck.
- o After initial entry, OH Materials reported back to Fernald that monitoring confirmed no radiological contamination at the scene. A total of three "hairline cracks" were found on two of the seven boxes. The first had already been discovered and patched and the other two will be secured before unloaded and sent back to Fernald.
- o The current plan of action is for OH Materials to unload the seven white metal boxes using a forklift, re-load them onto a pan trailer, and transport the containers back to the Fernald site. The pan trailer is equipped with a leak containment system and will be used in lieu of overpacking the white metal boxes. A complete investigation and analysis will be conducted when the containers arrive back at the site.
- o Representatives from Nevada informed DOE-Fernald today that a fifth box from Fernald was discovered to be leaking upon arrival at the Nevada Test Site. The five boxes have been patched and are segregated for later review.

Cleanup/Removal Plan -- 12/19 Update

- o At 02:30 EST the OHM team completed repair and transfer of the white metal boxes from the original trailer to the pan trailer.
- o Two white metal boxes found to be leaking were "burrito wrapped" with heavy gauge plastic for shipment.
- o A new gasket was installed on the rear door of the pan trailer to ensure the security of the shipment.
- o The trailer departed Kingman at approximately 18:00 EST en route to Fernald. Tri-State assigned a team of drivers in order to transport the shipment back to Fernald as quickly as possible.

Cleanup/Removal Plan - 12/21 Update

- o The pan trailer arrived at Fernald at 13:00 EST. The trailer was scanned; no contamination was detected.
- o The trailer was moved to the Plant 1 pad for overnight storage.
- o Offloading and incident analyses are scheduled to begin early on Monday 12/22 with regularly scheduled shift crews.



Technical Report Summary:

**Silo 3 Material Compound Analysis
Final Report**
(Issued October 10, 1997 by Argonne National
Laboratory)
Report #40400-RP-0005

What was the purpose of the Silo 3 Material Compound Analysis?

The Silo 3 Material Compound Analysis utilized several techniques to determine the chemical and phase composition of Silo 3 material. This analysis outlined in this report goes beyond the standard approach used by EPA for soils analysis, however, due to time constraints, this analysis is not as comprehensive as other characterization studies done at Fernald. This study is a semi-quantitative analysis of Silo 3 samples.

The following techniques were utilized in the analysis:

- **Scanning electron microscopy (SEM) in conjunction with electron dispersive spectroscopy (EDS)** – SEM was used to obtain a general view of the composition and microstructure of the sample.
- **X-ray diffraction (XRD)** – The purpose of X-ray diffraction was to determine the major phases in the sample.
- **Wet chemical analysis** – Wet chemical analysis was done to determine the quantities of the compounds present.
- **Analytical transmission electron microscopy (AEM)** – AEM helped to determine the composition of sub-micrometer particles.

What were the overall results of these experiments?

Through these techniques, it was determined that:

- Although the material is uniform on a macroscopic level, it is heterogeneous at a sub-micron level.
- Most silicon is found in the form of quartz.
- The major phases of the material are calcium sulfate, magnesium and calcium phosphates, iron phosphates, iron oxides, and silicon dioxides.
- The levels of sulfur are a problem for vitrification. Most but not all of the sulfur is found in the anhydrite form. Elimination of the anhydrite form of the waste will not remove all of the sulfur since there is still a fraction of the sulfur that is present in phosphates and iron-bearing compounds.

- No single element is found in only one phase.
- Phases containing nitrogen and carbon were not identified uniquely.
- Since the same phases reappeared in different studies, a representative sample of the phases was obtained.
- Many key elements are present in several forms.
- Uranium in the sample is associated with hematite, an iron oxide.

What were the results of the SEM/EDS technique?

SEM was used in this study to provide information on the basic composition of the sample and to determine whether or not the microscope could be used to provide representative sampling information of the material. The SEM experiments were also conducted to validate AEM results.

SEM/EDS found that:

- Although the sample appeared uniform at a macroscopic level, heterogeneity existed in the sample.
- The sample was composed of agglomerates of fine-grained material.
- The major phases were magnesium-, phosphorous-, and sulfur-bearing compounds and silicon oxide.
- The EDS underestimated levels of sodium, sulfur and iron and overestimated levels of phosphorus, silicon, and aluminum when compared to the wet chemical analysis.
- The EDS was unable to estimate levels of nitrogen or carbon.

What were the results of the AEM technique?

The AEM studies were used to determine the exact form of compounds in the material, i.e. to identify the individual phases. AEM was necessary because SEM showed that the material contained a large number of sub-micrometer particles. The information obtained from the AEM was then utilized in the XRD analysis in order to determine the distribution of phases.

AEM found that:

- The major phases were quartz, magnesium- and iron- phosphates, iron oxides, and calcium sulfate.
- The actinides (elements with atomic numbers 90 through 103, including uranium) were present as nanocrystalline particles of silicates, oxides, and phosphates.
- The major phosphate phase was magnesium phosphate which also contained small amounts of calcium, manganese, iron, arsenic, uranium, and possibly aluminum. Most of the nitrogen in the Silo 3 material may also be present in this phase.
- The major silicon compound was identified as quartz.

- Substitution of carbonate for phosphate and silicate can occur and this appears to be the major source of carbon in the material.
- Uranium is probably sorbed to the surface of hematite, an iron oxide.
- Vanadium and molybdenum are also present as vanadates and molybdates, which are enriched in actinides.
- Many phases were complex and unique identification could not be done.
- Sulfur is present in levels that will cause problems during vitrification; both calcium and iron bearing sulfur compounds were found. There was some difficulty in determining the major sulfur-bearing phase.

What were the results of the XRD technique?

The object of XRD was to determine the major phases in the sample. XRD can be used to estimate the amounts of each phase, but XRD is difficult to use with heterogeneous samples. Results of XRD were interpreted with the help of transmission electron microscopy (TEM) for the individual phases' composition and with SEM for overall composition material balance. The results of XRD were:

- Strong diffraction intensities were found for iron oxide, calcium sulfite, and silicon dioxide phases.
- XRD showed presence of sodium nitrate which was not confirmed by any other technique.
- XRD showed that the sulfur-bearing phase is a variety of anhydrite (a mineral belonging to the class of sulfates).

What was the purpose of the wet chemical analysis?

Wet chemical analysis was conducted to determine the composition of the sample and to compare the results to those obtained by other laboratories. The results of this analysis are not outlined in the report.



Technical Report

Summary:

**Performance Agreement Between the President of the United States, William Jefferson Clinton, and the Secretary of Energy, Federico Pena
Fiscal Year 1997**

What is the Performance Agreement?

The Performance Agreement outlines the general goals, specific commitments, and key success measures to be pursued by the Department of Energy during the fiscal year 1997.

The broad areas in which DOE will make specific commitments are:

- Energy Security
- Environmental Quality
- National Security
- Science and Technology

Although DOE met all of its commitments outlined in fiscal year 1996, DOE needs to continue to work on the following goals:

- Strengthening nuclear nonproliferation
- Replacing underground nuclear weapons testing with science based stewardship
- Cleaning up nuclear weapons production sites
- Promoting clean and efficient supply of energy
- Leveraging science and technology for our nation's competitiveness with a stronger partnership with the private sector
- Leveraging DOE's unique science and technology capabilities to provide knowledge that drives the nation's future
- Reducing the global nuclear danger
- Restoring, stabilizing, protecting, and enhancing the environment
- Developing and deploying clean energy sources and enhancing energy security
- Stimulating US economic productivity

In order to accomplish these goals DOE will:

- Improve communications and trust
- Increase productivity of DOE's human resources

- Achieve excellence in the safety and health of DOE workers, the public, and the environment
- Become the "Best in Class" in the use of management practices

The success DOE has in meeting these goals will be measured by:

- Customer Satisfaction
- Releases to the Environment
- Lost Workday Case Rate
- Diversity
- Savings
- Employment

What are the specific commitments made by DOE?

Under each of these goals and success factors, DOE has established specific commitments in order to identify whether these goals have been met. Below are listed some of these goals along with relevant commitments.

Science and Technology

- Maintaining high standard of service delivery at DOE Science Facilities
- Continuing science-based programs to find new methods for environmental cleanup
- Transferring environmental technologies to private industry

National Security

- Downsizing the Nuclear Weapons Complex
- Maintaining the enduring stockpile
- Managing surplus weapons and usable fissile material
- Managing contractor work-force restructuring

Environmental Quality

- Accelerating risk reduction and reducing lifecycle costs of nuclear weapons sites cleanup (Accelerated Cleanup Plan)
- Making progress on the treatment, storage, and disposal of radioactive wastes
- Reducing the risks; cleaning up nuclear weapons sites
- Ensuring environmental justice
- Preventing future pollution

Communication and Trust

- Making more information available to the public
- Improving services to customers and stakeholders
- Involving stakeholders in the policy-making process

Human Resources

- Streamlining management structure
- Ensuring workforce diversity
- Improving technical qualifications of personnel
- Improving human resource practices
- Providing transition assistance to employees

Environment, Safety, and Health

- Improving efficiency and effectiveness of protecting workers, the public, and the environment
- Identifying practical ways to address the most significant health risks to former workers
- Maintaining a multi-disciplinary independent oversight process

Management Practices

- Continuing the strategic alignment initiatives to streamline and re-engineer
- Becoming a world class quality organization
- Improving contractor performance and accountability
- Reducing federal regulations
- Reducing the business management oversight burden on field activities
- Effectively using DOE lands and facilities through comprehensive planning

What is the vision of DOE?

The success of DOE in meeting its goals and commitments contribute to the overall of vision of DOE. DOE's vision is to become:

- A major partner in world class science and technology, research centers, and university research.
- A vital contributor to reducing the global nuclear danger through its national security and nonproliferation activities.
- A world leader in environmental restoration, waste management, and pollution prevention.
- A key contributor in developing, applying, and exporting sustainable, clean, and economically competitive energy technologies.
- A key contributor in maintaining US global competitiveness.
- A safe and rewarding workplace that promotes excellence, nurtures creativity, rewards achievement, and is results-oriented and enjoyable.



Technical Report

Summary:

Technical Task Plan

Mobilization, Extraction, and Removal of Metals and Radionuclides

(Issued by DOE-FEMP October 20, 1997)

Document #OH18SS40

What is the Technical Task Plan?

The Technical Task Plan outlines the Project Demonstration Phase of the Groundwater ReInjection System. The Groundwater ReInjection System will pump treated groundwater into the Great Miami Aquifer (GMA) in order to reduce uranium levels. The Demonstration Phase will take place in the South Field of the FEMP, which is a major source of contamination into the South Plume of the GMA. This project is an industry partnership with DOE, which should reduce remediation time from 27 years to between 3 and 17 years. The objectives of the demonstration phase of this project are:

- To show that reinjection rates of 200 gallons per minute (gpm) can be sustained at the field scale for a period of one year.
- To determine the operational and maintenance costs to sustain reinjection rates of 200 gpm for one year.
- To determine the effect that reinjection has on the vertical and horizontal dimensions of the 20 $\mu\text{g}/\text{l}$ (micrograms per liter) uranium plume.
- To determine if the hydraulic patterns and profiles that indicate increased flushing in the aquifer are being achieved as predicted by the groundwater model.

If the demonstration phase shows that these objectives can be met, then a full-scale application of the technology will begin.

What questions is the Demonstration Phase meant to answer?

1. Can injection be managed such that it does not expand the plume, either horizontally or vertically?
2. Can injection rates be delivered and maintained over a long period of time, and what are the associated costs?
3. Can injection be used to minimize drawdown (lowering of the water level) in a regional aquifer?
4. Can injection be used to minimize stagnation zones and manage the pore volume turnover of the aquifer?

5. Can the modeled uranium-mass removal rate be verified; and can the values obtained from the injection demonstration be compared to baseline models to show that increased efficiency is due to injection?

What are the benefits of reinjection?

The anticipated benefits of this project are:

- Shortening of the remedy time
- Increasing the uranium flushing rate through the plume
- Decreasing the aquifer drawdown
- Reducing hydraulic impacts to adjacent areas of the aquifer
- Reducing amount of residual contamination remaining in the aquifer

What are the project milestones?

For FY97:

- Submit draft demonstration test plan for approval by regulators
- Design injection-extraction demonstration system
- Install demonstration injection wells

For FY98:

- Issue demonstration test plan approved by regulators
- Complete installation of demonstration injection pipeline and utilities
- Complete installation of "early start" extraction pipeline and utilities
- Install off-property demonstration extraction wells
- Construct FEMP Advanced Waste Water Treatment Plant expansion
- Perform Injection Demonstration

For FY99:

- Issue report on injection
- Go/No-Go recommendation on injection

The project will also include specific deliverables including participation in project reviews and end-user or stakeholder meetings.

Who are the industry partners?

The FEMP will work on an industry partnership with MSE-WETO of Butte, Montana. MSE will sub-contract to Rio Algom Mining Corp. and In-Situ Inc. for their expertise.

How is this project to be funded?

The project will be jointly funded by EM-40 and EM-50. EM-40 will contribute \$12.4 million over the fiscal years 1995-1998 and EM-50 will contribute \$4.5 million over this same time period.



Technical Report Summary:

Performance-Based Fee Plan End-of-Period Self Assessment

(Issued by FDF for the evaluation period April 1, 1997 through September 30, 1997)
Document #DE-AC24-92OR21972

What is the Performance-Based Fee Plan Self Assessment?

The Performance-Based Fee Plan Self-Assessment is a self-evaluation by FDF over the second half of the 1997 fiscal year in the areas of:

- Safe Clean-Up,
- Least Cost, Earliest, and Final Cleanup,
- Stakeholder Concerns, and
- Milestones.

Each of these major areas is subdivided into categories of obtainable Performance Objective Criteria and Milestones. Depending on whether these criteria/milestones have been achieved, FDF can receive a rating of satisfactory, unsatisfactory or excellent in each of these subdivisions.

What are the Performance Objective Criteria under Safe Cleanup?

There are eleven Performance Criteria evaluated in the area of Safe Cleanup. FDF is achieving ratings of "excellent" on ten of these criteria and a rating of "satisfactory" on one, Quality Assurance. FDF gave itself a satisfactory rating for Quality Assurance because it was unable to surpass the minimum requirements of the criteria. Below are some of the other criteria evaluated:

- Timely Identification, Categorization and Control of Safety and Health Deficiencies
- Corrective Actions
- As Low As Reasonably Achievable
- Radiological Control Tasks
- Effectiveness of Root Cause Analysis (ability to determine the cause of an incident)

What were the Performance Objective Criteria under Least-Cost, Earliest, and Final Cleanup?

The Least Cost, Earliest, and Final Cleanup evaluation was made up of twelve Performance Criteria. FDF is achieving excellence on all eleven of these criteria. One criteria, Mixed Waste Treatment Projects was deleted from the evaluation. Some of the other criteria evaluated were:

- Compliance with FY97 Baseline
- Thorium Overpacking Project

- Low Level Soils and Liquid Waste Disposition
- Mixed Waste Treatment Projects
- Procurement/Acquisitions/Waste Minimization
- Thorium Waste Treatment and Disposal

How is addressing stakeholder concerns evaluated?

The basis for the evaluation of addressing stakeholder concerns were:

- Continued support of start-up activities of Fernald's CRO
- Development and implementation of a communication strategy to identify and relay information to and obtain feedback from stakeholders
- Improvement of the dissemination of site information and external communication via the FEMP home page and other electronic media
- Facilitation of improved communication and continued development of positive working relationships with regulatory agencies
- Facilitation of improved relationships with and among site labor unions
- Maintenance of an effective workforce restructuring strategy

FDF gives itself an excellent rating in this area, but notes that the use of the internet is a significant weakness in the program.

What is the evaluation of milestone completion?

For this section of the self-assessment, FDF looks at its ability to meet regulatory milestones in each of the operable units. FDF gave itself an unsatisfactory rating in Mixed Waste Projects. This unsatisfactory rating is a result of failures by the sub-contractor. Three other projects were deferred or deleted: Funds and Commitment Management for Waste Pits Remedial Action Project, Nuclear Materials Repackaging, and Nuclear Material Sales. Reasons for deferring and deleting certain criteria are not adequately explained in the document. Some of the other criteria evaluated were:

- Operable Unit 1 - Alternative Remedial Action Subcontracting Approach Consent Package
- Operable Unit 1- Site Improvements Project
- Operable Unit 2 - On Site Disposal Facility Construction
- Operable Unit 2 - On Site Disposal Facility Integrated Construction Schedule
- Waste Acceptance Plan for the On Site Disposal Facility
- Operable Unit 3 - Safe Shutdown
- Operable Unit 3 - Award Thorium/Plant 9 D & D Contract
- Area 1 Phase I Certification Report
- South Plume Extraction System Performance Monitoring and Maintenance Program
- Re-injection Demonstration Test Plan



WASTE MANAGEMENT COMMITTEE MEETING SUMMARY

December 1, 1997
6:00 p.m. - 8:00 p.m.
Jamtek Building

Topics:

- Update on Preliminary Injunction against DOE
- Discussion of the Silo 3 Request for Proposal (RFP)
- Discussion of the Brookhaven National Laboratory, Argonne National Laboratory, and University of Cincinnati studies on Silo materials

Attendees:

CAB members:	Lisa Crawford Bob Tabor Gene Willeke
CAB staff:	Doug Sarno
DOE:	Nina Akgunduz Stephanie Bogart
Fluor Daniel Fernald:	Don Paine Tisha Patton Sue Peterman Jeff Stone Karen Wintz
OEPA:	Kelly Kaletsky
USEPA:	Gene Jablonowski

Results:

- Draft letter to Secretary Pena concerning the Preliminary Injunction
- Schedule committee conference call for the first week of January

Meeting Summary:

Preliminary Injunction

Stephanie Bogart, legal counsel for DOE-FEMP, began the meeting with a discussion of the Preliminary Injunction against DOE. She gave a brief history of the case.

- In August 1996, DOE-Ohio issued an RFP for disposal of low-level wastes from various sites, including Fernald. The RFP called for the disposal site to take title of the waste and specified that the disposal site be a licensed commercial facility. A non-licensed facility could bid on the RFP if they could obtain a license within 27 months.

- On September 20, 1996, WCS submitted a proposal to dispose of the waste at their Andrews County, Texas, facility. Texas, however, will not license non-public entities for disposal of low-level wastes. WCS, thus, submitted a proposal for an oversight group consisting of representatives from Texas Tech University, Texas A & M University, and a consulting group. DOE declined to accept this proposal.
- In August 1997, WCS issued its first complaint against DOE. WCS argued that they can not get a license and under current law they do not need a license. WCS had suggested an oversight group in lieu of the license. DOE contended that WCS could not accept title to the waste.
- In September 1997, an injunction was issued against DOE prohibiting it from denying WCS the ability to bid on contracts for disposal of low-level wastes based on the fact that it is not licensed by the state of Texas or the NRC.
- On November 26, 1997, DOE filed an appeal. The appeals process will be very lengthy. DOE had previously tried to settle out of court, but was unsuccessful. Lisa Crawford commented that the dispute should be between WCS and Texas, since it is Texas that is denying WCS a license for disposal.

The Waste Management Committee decided to draft a letter to Secretary Pena concerning the injunction. Lisa suggested that they model the letter on one recently sent to Pena from the Hanford Advisory Board. Bob Tabor pointed out that the injunction has a significant economic impact on disposal of future wastes; this economic impact should be addressed in the letter to Pena. Doug Sarno thought the letter should also include some mention of how stakeholders have been involved in the decisions at the site; WCS should not be allowed to impact those stakeholder decisions. Lisa said that FRESH would also write a letter to Pena and model it on the one drafted from this meeting. The Committee agreed that the letter should also be sent to the Ohio Congressional delegation.

Silo 3 RFP

Karen Wintz discussed the Silo 3 RFP. The RFP requires that the contractor be responsible for the retrieval, treatment, and packaging of Silo 3 wastes. The retrieval stage will be fairly complex, as the silo must be protected and environmental releases controlled. As part of the pretreatment stage, the contractor must prepare safety basis documentation and FDF will conduct an operational readiness review. The RFP specifies that treatment must be a chemical or polymer-based stabilization method with ultimate disposal at NTS. Disposal cannot occur at a commercial facility because of the injunction against DOE. If the injunction is terminated, the RFP will be modified. The contractor is responsible for shipping containers and interim storage until the waste can be shipped to NTS for disposal.

The RFP is written for on-site treatment of wastes, but DOE has asked for feedback on an off-site treatment option. However, off-site treatment would require 2 shipments (one to the treatment facility, one to the disposal site), adherence to NRC regulations, and a pretreatment before waste could be moved off-site. Only Envirocare has said that they could do off-site treatment cost-effectively. Presently, Envirocare is not licensed to treat this type of waste; also, they will have to upgrade their equipment in order to treat this waste. Two other companies, Lewistech and Allied Technology Group, say that off-site treatment would not be cost-effective.

The scope of work is expected to be about 52 months. Only 12 months of this time is scheduled as actual treatment time; the pre-operational phase will utilize the majority of the time. During the pre-operational phase, the contractor must design, construct, and test the treatment process and facility. Shutdown and dismantlement are expected to take 5 to 6 months. The demonstration phase is expected to last two months.

Gene Willeke was concerned that important information was missing from the RFP. He felt that information about the compound analysis and particle size of the waste should be included in the text of the RFP. Additionally, he was concerned that acceptable limits for some items were not included in the documents. He also felt that documents such as the IRT Report should be more easily accessible to potential contractors.

Currently, DOE is compiling a list of comments. The most numerous comments seems to call for the provision of off-site treatment. They hope to release the RFP before the scheduled date of March 12, 1998. Once released, information obtained from vendors will become confidential. Information will be provided on how many bids are received, but not on the details of those bids.

Silo Material Studies

Sue Peterman provided an update on the various studies being conducted on the Silo materials. Brookhaven National Laboratory has completed a testing of the surrogate waste material. They have Silo 1 and 2 material for testing and will receive Silo 3 residue next week. Brookhaven performs its TCLP analysis differently than the regulations require and this has caused minor problems. Argonne National Laboratory has also completed testing of the surrogate material. Originally, they had problems working with radioactive materials, but those have been resolved. The University of Cincinnati is providing an independent analysis of the treated Silos 1 and 2 material. They will not be dealing with Silo 3 material.

Other Information

Nina Akgunduz provided a briefing packet on Silos 1 and 2. She began her presentation by explaining the Auxiliary Waste Retrieval Team. The members of this team are:

- Todd Martin (Hanford)
- Bob Roll (Hanford)
- Gayle Bingham
- Eric Newberry (Oak Ridge)

The team is not intended to be a new IRT. DOE is initiating a new process and wants to convene expert teams at major steps in the Silos Project. At the first Waste Retrieval Team Meeting, the FDF Project Manager will give an overview of Silos 1 and 2 and is requesting that members of the public attend. However, the public will not be able to observe all three days of the meetings.

The December 9th Monthly Cleanup Progress Briefing will vary from the previous ones. There will not be a full report on all the operable units. The two hours will be divided between recycling, authorized release issues, and details of the briefing package. The meeting will also include a path forward schedule for OU4.

A committee conference call has been tentatively scheduled for the first week of January.



NATURAL AND CULTURAL RESOURCES COMMITTEE MEETING SUMMARY

November 24, 1997
6:00 p.m. - 8:00 p.m.
Jamtek Building

Topics:

- Discuss the Sitewide Excavation Plan
- Discuss the Natural Resource Restoration Plan
- Discuss the Natural Resource Impact Assessment
- Discuss Aesthetic Barrier Project
- Discuss the Supplemental Environmental Projects for OU4 Dispute Resolution
- Discuss Conservation Easements

Attendees:

CAB members:	Jim Bierer Bob Tabor
DOE:	Rob Janke Kathi Nickel
Fluor Daniel Fernald:	Tisha Patton Eric Woods
OEPA:	Tom Schneider Donna Bohannon

Meeting Summary:

Sitewide Excavation Plan

Rob Janke and Eric Woods began the meeting with a discussion of the Sitewide Excavation Plan (SEP). The SEP was originally conceived by FEMP as a document to lay out soil excavation, but it was soon recognized that numerous issues would have to be resolved before soil excavation could actually begin. Soil excavation is a complicated process and a basic document was needed to oversee the process. The SEP was developed into this document. In section one of the SEP, the major issues involved with soil excavation are discussed. The core of the document is contained in sections two, three, and four. These sections lay out more specific issues, strategies, steps, and goals to be involved in soil excavation of specific locations. The SEP

also lays out a regulatory hierarchy to be followed in reaching final certification. The document hierarchy is as follows:

- The site is broken down into eight areas. In each of these areas, a pre-design investigation is conducted. During this investigation, sampling and/or analysis is conducted to determine where excavation will be done. In OU1, this step did not occur because excavations were driven by the On-Site Disposal Facility.
- Next a remedial design is developed for each area. The remedial design designates the extent of excavation.
- The remedial design then feeds into the Integrated Remedial Design Package (IRDP).
- The actual implementation of soil excavation occurs after or during remediation activities.
- Once the excavation is finished, a pre-certification scan is conducted. Physical samples are taken from the site and analyzed to see if they will pass certification. This phase also determines how certification units will be set up. Certification is based on a homogeneous assumption, i.e. all areas are equal within a certification unit. Certification occurs if the acceptance level of the analysis is met, when there is 95% confidence that the mean of the samples is not greater than the final remediation level. The certification grid is specified in the SEP.
- These activities result in a Certification Design Letter and implementation of certification occurs.
- Once results of the final certification are obtained, a certification report is written.
- Finally, interim grading and restoration occurs.
- After all areas have completed the interim grading stage, a Remedial Action Report will be developed for the site. Following this document, the Natural Resource Restoration Plan (NRRP) will be utilized in the final grading of the site. The NRRP identifies the impacts of past/future releases on the environment, performs a habitat equivalency analysis, and proposes restoration activities to compensate for impacts. The NRRP is a way of monitoring the success of the entire project.

Jim Bierer then asked where the money will come from to complete this restoration. FEMP is in the process of planning for Fiscal Year 1999 and as of now restoration funds will come out of soil excavation funds. FEMP is trying to determine the actual cost to restore each area.

NRIA and NRRP

The Natural Resource Impact Assessment (NRIA) monitors impacts that occur during remediation. This information is used to establish a baseline for the impacts outlined in the NRRP. The NRRP predicts what probable effects

will be and the NRIA actually determines the effects that have occurred. It is expected that anticipated events will vary from reality. In this case, the NRRP will be reanalyzed. Flexibility is built into the NRRP. Areas and plans can be substituted if restoration can not occur as outlined in the NRRP.

Aesthetic Barrier Project

The committee then discussed the Aesthetic Barrier Project. Jim was concerned about the appearance of the treeline when finished. He commented that the plans for the barrier looked more like landscape plans for a yard than for a natural system. He also thought that it might be difficult to find non-urbanized native species of the trees to use in the barrier. The size of the trees was also a concern. The plan proposed using gallon trees, but Jim noted that this size tree would be very small and not provide much cover. Bob Tabor suggested that a dirt embankment be built, with the trees planted on top. This would provide more coverage for the site. Jim Bierer agreed that this would give the needed elevation quickly. A mix of evergreen and deciduous trees is, however, being used to provide the maximum coverage possible throughout the year. Dirt would not be available for use at the site for a few years; all dirt now available is scheduled for use in other projects. Thus, any barrier constructed now could be completed at a reasonable price but would look very landscaped. Jim was asked to explain the driver for the original recommendation for the aesthetic barrier. He explained that the Fernald Citizens Advisory Board had felt that people would not want to see the dust, noise, etc., from the site.

Supplemental Environmental Projects

Some projects have been suggested as part of the Supplemental Environmental Projects for OU4 Dispute Resolution. A list of potential projects for research grants has been received from local universities. These projects include: target species restoration, vegetative plots, and invasive species studies. Miami University will be studying the Buffalo Clover and a strain of American Chestnut that is 7/8 pure. Bob suggested that someone also study Butternut trees. Miami University will also study trees in vegetative plots. The University of Dayton wants to do a prairie study on the eastern side of the property where nothing will currently grow. Jim suggested that local parks may also have expertise in cultivating native plants. Hamilton County has been contacted about helping to cultivate native species. One of the invasive species studies will study honeysuckle. Jim said that honeysuckle is native around the area and, therefore, he is not sure that it should be controlled. He also expressed concern as to whether natural succession will be allowed at the site after the native species have been established or if invasive species will continuously be eradicated. Jim questioned whether a forest can actually be established, or if the right species can only be introduced. He suggested that the growing conditions of many of these plants be studied as part of these research grants.

Jim then restated the earlier Natural and Cultural Resource Committee recommendation that these research projects should have been included as part of the Restoration Plan. Unfortunately, without the Supplemental Environmental Projects, these studies could not be done. The Supplemental Environmental Projects allow research that would have had to be gained by trail and error otherwise.

Bob stated that this site provides a unique opportunity to preserve species that are rarely found in other areas.

The use of Conservation Easements does not look promising. Right now there are three owners of land that would be suitable for the easements: a trucking company, West Homes, and one homeowner who is interested in keeping the land undeveloped. Conservation Easements are agreements in which the landowner retains ownership of the land, but agrees not to develop the land.

The next steps on these issues involve the implementation of the Aesthetic Barrier Plan in approximately one year and the release of the formal comments on the NRRP.

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NewsFlash

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NewsFlash

REGIONAL
THE FULL STORY

British company's cost for U.S. enriched uranium kept secret

By JOHN NOLAN
The Associated Press
12/22/97 12:14 AM Eastern

CINCINNATI (AP) -- The U.S. Department of Energy says contract stipulations prevent it from saying what a British company paid for millions of pounds of uranium at the Fernald site.

But the Energy Department says its deal with the British Nuclear Fuels Ltd.'s Uranium Asset Management subsidiary to buy the 2.1 million pounds of enriched uranium could save taxpayers up to \$10 million.

The department based the estimate on what it would cost to package and ship the uranium as waste for disposal in an approved commercial site.

The uranium is almost one-third of the 6.8 million pounds of enriched uranium at Fernald. The department had tried for 4 years to find a buyer, but now is hopeful that BNFL or another company might take the rest for conversion to nuclear reactor fuel for power production, DOE spokesman Ken Morgan said Friday.

"We were anxious to get rid of this stuff ... Once we load the truck, it's theirs," Morgan said. "The success of this sale is important to us."

Proceeds from the sale go to the U.S. Treasury, after the Fernald site is reimbursed for its costs of preparing the uranium for shipment. Federal security officials approved the deal after reviewing it for weapons-proliferation concerns, officials said.

BNFL insisted in its contract with Fluor Daniel Fernald, the government's cleanup contractor at Fernald, that the uranium sale price not be made public for competitive reasons. BNFL has other business relationships with the Energy Department, including being a cleanup contractor at DOE's Savannah River, Oak Ridge, Rocky Flats and Hanford sites.

The Associated Press filed a Freedom of Information request Dec. 12 to obtain the sale price of the uranium. The Energy Department has refused to give that number, saying the contract requires that it consult with BNFL before releasing such information.

Packaging, shipping and paying for off-site disposal of wastes is a big part

of the cost of the 20-year, multibillion-dollar cleanup of radioactive leftovers at the 1,050-acre Fernald site. The government processed uranium there for nuclear weapons production elsewhere for 40 years until the work stopped in 1989 for the cleanup. The government still must deal with hundreds of tons of other radioactive wastes at Fernald.

Neighbors of the site, 18 miles northwest of Cincinnati, said they are pleased to see the uranium is going. The first load went out Nov. 3 and the deal requires that all shipments be completed by Dec. 31, 1998.

BNFL plans to clean up and enrich the uranium to sell it for use as commercial reactor fuel in the United Kingdom. Naturally occurring uranium contains .7 percent of U235, which must be increased to a 3 percent to 5 percent content before it can be consumed in nuclear reactors used for power production.

Morgan said selling uranium is becoming difficult because it is more readily available on the world market.

Converting excess weapons-grade uranium into fuel sold to power companies has been under way for some time.

Russia has agreed to dilute 500 tons of weapons-usable uranium and sell it to the United States for commercial use over the next 20 years.

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December 22, 1997

Associated Press-Online

Internet-Cleveland Live: Newsflash

"British company's cost for U.S. enriched uranium kept secret"

By John Nolan, Associated Press

December 22, 1997
Cincinnati Enquirer
Opinion, A14, Thumbs Down
"Fernald leaks"

1189

Thumbs down

► FERNALD LEAKS:

Five leaky containers of low-level radioactive waste aboard a Nevada-bound truck convoy from Fernald cast new doubt on federal nuclear waste disposal. "White metal boxes" in four of seven trucks this week were found leaking. The boxes also were not supposed to have more than 5 percent moisture content.

Nevada politicians predictably went ballistic over such truck shipments through the Las Vegas Valley, but the relatively minor risks are much the same for all points between Fernald's former nuclear plant here and the Nevada Test Site. Nevada critics ask, with good reason, if the Department of Energy can't ship low-level waste safely, what can we expect if their Yucca Mountain site is approved for more hazardous high-level wastes?

Fernald's track record has been good: more than 125 million pounds of waste shipped without incident. But the leaky convoy shows DOE needs better vigilance in managing cleanup and shipment of Cold War "legacy wastes."

December 22, 1997

Engineering News-Record

"FLUOR DANIEL—Creating Solutions for Our Clients"

1062-1180

FLUOR DANIEL**CREATING SOLUTIONS FOR OUR CLIENTS**

In today's highly competitive global marketplace success is dependent upon time to market and capital costs. Fluor Daniel uses its experience from decades of working in major industries worldwide and its technical strength and execution expertise to provide clients with quality services to meet every one of their objectives.

"Fluor Daniel's range of diversified services are designed to match our clients' needs on a global basis," says Jim Stein, Fluor Daniel's President and Chief Operating Officer. "We are strategically located where our clients want to build their projects and distribute their products. We provide competitive engineering, construction, operations and maintenance services to ensure our clients are the low-cost provider in their industries.

"At Fluor Daniel we continually work to find new and creative ways to build upon our technical strength and core competencies and provide fit-for-purpose solutions for our clients," says Stein. "In fact, approximately 70 percent of our business is with repeat clients, which clearly demonstrates that we build relationships as well as projects. From the first phases of project development, financing, site selection and design through construction, operations and maintenance, we implement cost-saving strategies while optimizing our client's mission."

Fluor Daniel is at work in about 60 countries throughout Europe, Africa and the Middle East, Latin America and the Asia Pacific region, and its capabilities are further strengthened by its joint ventures with Grupo ICA, Tecnoconsult, Prochem and Prosynchem.



Fluor Daniel provided program management for the Kuwait Petrochemical complex, a major grassroots petrochemical plant.

Fluor Daniel's High-Value Engineering Centers, with their highly skilled local engineering staffs in Poland, Mexico, the Philippines and India, provide clients with quality service at a lower cost. "Because our capabilities emanate from more than 60 electronically networked offices, we can operate 24 hours a day," says Stein. "Not a moment passes that we are not at work on our clients' projects."

SERVING AN ARRAY OF INDUSTRIES

From engineering and building a polymer plant in Singapore for DuPont to developing a fast-track network buildout with more than 500 cellular sites in Taiwan for AT&T, Fluor Daniel has the expertise and geographic presence these global clients require to complete their projects safely, cost-effectively and on time.

Fluor Daniel's Energy & Chemicals group addresses the wide spectrum of energy and chemicals markets. In particular, the petrochemicals industry represents nearly 40 percent of the world's chemical market. In Kuwait, Fluor Daniel provided program management for a recently completed world-class grassroots petrochemical complex.

The company has formed a stand-alone joint venture with Stone & Webster to pursue and execute ethylene and related petrochemical work worldwide, providing engineering, procurement, construction and project management consulting services. "We bring our global presence and strengths in process facility design and program management to the joint venture, while Stone & Webster provides state-of-the-art ethylene processing technology and engineering, procurement and construction capabilities to meet the time constraints

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and cost requirements of our clients," says Stein.

A major force driving investment in the microelectronics industry is the migration from 200 mm to 300 mm wafer production. The company's ADP Marshall unit is a global leader in designing and building world-class wafer fabrication facilities. ADP Marshall provided engineering services and managed construction of the wafer technology fabrication facility for Taiwan Semiconductor and its partners in Camas, Washington.

Fluor Daniel's experience in the mining industry provides clients with knowledge of local regulations and environmental needs, strong execution capabilities and experience handling complex infrastructure and logistics requirements of large mining projects. On the Batu Hijau copper and gold project in Indonesia, Fluor Daniel is providing full-scope services.

In the telecommunications area, Fluor Daniel anticipates numerous opportunities to build and expand telecommunications systems in support of rapidly growing economies worldwide. It has formed an alliance with a major U.S. regional local exchange carrier to provide outside plant engineering services for its network. ICA Fluor Daniel and Northern Telecom also completed the construction and installation of a 5,300-kilometer fiber optic network connecting 33 cities in Mexico for Avantel.

"Our focus on customer satisfac-

tion has resulted in further diversification of services around our core strengths," says Stein. TRS Staffing Solutions provides short-term personnel to keep pace with the growing trend toward outsourcing personnel services. American Equipment Company's global distribution network provides equipment to clients throughout Latin America and the Asia Pacific region.

PROVIDING VALUE THROUGH PROJECT FINANCE EXPERTISE

Many projects, especially in emerging countries, require funding to get off the ground. During the past six years, Fluor Daniel has arranged financing on construction projects worth more than \$5 billion and is pursuing \$25 billion worth of projects for which financing will be needed. Through its financial strength and global presence, Fluor Daniel helps to facilitate its clients' development strategies.

"Our project finance experts advise clients where they may obtain funding, how to structure deals, and help make financing arrangements," says Stein. "Or, we may choose to become an equity partner in selected client projects."

Fluor Daniel's strong reputation and balance sheet, combined with direct financial participation and expertise differentiates them from their competitors. For the Shell Rayong refinery project in Thailand, Fluor Daniel worked with the client and more than 50 banks

in securing the \$2 billion financing package and was the lead in the contracting joint venture.

REMAINING PREEMINENT IN SAFETY AND TRAINING

In any region of the world, Fluor Daniel will recruit and train a local workforce as needed. In Indonesia, a series of expansions for the Freeport-McMoRan copper mining operations was hindered by a shortage of trained labor. Because Fluor Daniel could recruit Indonesian craft workers it had previously trained, the project came in eight months ahead of schedule.

Fluor Daniel has had more impact globally on improving construction safety than any other contractor. The company is setting the pace in the industry. Its safety performance, based on lost workday incidence rates, is 70 times better than the U.S. industry average. Global safety awards have been received from numerous associations and governmental entities.

"Globalization remains the dominant theme for our industry," says Stein. "Fluor Daniel is proud of the quality of service we bring to the global marketplace and our commitment to creating cost-effective solutions designed to meet each of our client's individual needs."

Corporate Headquarters:
3353 Michelson Drive
Irvine, California 92698
Tel: (714) 975-2000



The City of Long Beach's Primary Radio Transmitter Site, which was designed and constructed by Fluor Daniel Telecom.



ADP Marshall provides a full spectrum of design/build services for the microelectronics industry.

JAKARTA LONDON MELBOURNE MEXICO CITY SAN JUAN SANTIAGO SINGAPORE VANCOUVER

December 15, 1997

Weapons Complex Monitor

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"ROCKY FLATS LED ALL SITES FOR SENDING WASTE TO NTS IN NOVEMBER"

11180

1 of 2

ROCKY FLATS LED ALL SITES FOR SENDING WASTE TO NTS IN NOVEMBER

Rocky Flats sent more low-level radioactive waste than any other site to the Nevada Test Site in November—four shipments totaling 6,542 cubic feet of waste. Fernald, however, continues to be the site that has sent the most shipments and the greatest volume to NTS this fiscal year—26 shipments totaling 46,923 cubic feet of waste. The Department of Energy's Nevada Operations office has released a summary of the LLW received by NTS through the week ending Nov. 30 (*see chart, p. 10*). NTS has received 56 shipments totaling 78,160 cubic feet of LLW from seven sites in FY98. ◀

WASTE MANAGEMENT PROJECT FY 98 RADIOACTIVE WASTE SUMMARY

DOE Approved Generators	Disposal Location	W/E 30 NOV 97			FY 98 TOTAL			WMP TOTAL	
		No. of Shipments	(Cu.Ft.)	Volume (Cu. M.)	No. of Shipments	Volume (Cu. Ft.)	Volume (Cu. M.)	Volume (Cu. Ft.)	Volume (Cu. M.)
Aberdeen	Area 3	0	0	0.00	0.0	0	0.00	120	3.40
	Area 5	0	0	0.00	1.0	448	12.69	66,504	1,883.19
Allied Signal	Area 5	0	0	0.00	0.0	0	0.00	413	11.69
Bechtel Nevada	Area 3	0	0	0.00	0.0	0	0.00	204,945	5,803.39
	Area 5	0	0	0.00	0.0	0	0.00	14,138	400.34
	Mixed	0	0	0.00	0.0	0	0.00	163	4.62
FERMCO	Area 3	0	0	0.00	25.0	46,923	1,328.71	3,158,736	89,445.29
	Area 5	0	0	0.00	26.0	4,787	135.57	2,481,981	69,715.43
General Atomic	Area 3	0	0	0.00	0.0	0	0.00	138,096	3,910.44
	Area 5	0	0	0.00	3.0	4,047	114.60	429,847	12,171.90
IT Corporation	Area 3	0	0	0.00	0.0	0	0.00	419	11.87
	Area 5	0	0	0.00	0.0	0	0.00	7,676	217.36
ITRI	Area 5	0	0	0.00	0.0	0	0.00	5,055	143.14
LNL, CA	Area 3	0	0	0.00	0.0	0	0.00	66,101	1,871.77
	Area 5	0	0	0.00	6.0	5,989	169.59	33,809	1,093.29
MOUND	Area 3	0	0	0.00	0.0	0	0.00	13,550	383.69
	Area 5	0	0	0.00	0.0	0	0.00	1,572,322	44,523.12
PANTEX	Area 5	0	0	0.00	0.0	0	0.00	104,717	2,965.24
RMI	Area 5	0	0	0.00	0.0	0	0.00	33,657	953.06
ROCKETDYNE	Area 3	0	0	0.00	0.0	0	0.00	105	2.97
	Area 5	0	0	0.00	2.0	1,040	29.46	37,762	1,069.29
Rocky Flats	Area 5	1	2,142	60.65	10.0	13,530	383.11	2,147,383	61,005.24
	Mixed	0	0	0.00	0.0	0	0.00	283,372	8,024.19
SANDIA Nil Lab, CA	Area 3	0	0	0.00	0.0	0	0.00	2,287	64.76
	Area 5	0	0	0.00	0.0	0	0.00	15,703	444.67
SANDIA Nil Lab, NM	Area 5	2	1,395	39.51	2.0	1,395	39.51	10,920	309.23
Inactive offsite waste generators	Area 3	0	0	0.00	0.0	0	0.00	89,980	2,547.95
	Area 5	0	0	0.00	0.0	0	0.00	38,654	1,094.56
Inactive onsite waste generators	Area 3	0	0	0.00	0.0	0	0.00	8,211,495	232,523.26
	Area 5	0	0	0.00	0.0	0	0.00	76,538	2,167.31
GRAND TOTAL		3	3,537	100.16	56	78,160	2,213.23	19,228,249	544,756.66

Total offsite waste received in FY 98 = 78,160 Cu. Ft.; 2,213.23 Cu. M.

Total onsite waste received in FY 98 = 0 Cu. Ft.; 0.0 Cu. M.

Offsite waste comprises approximately 55.74% of the total waste inventory

Onsite waste comprises approximately 44.26% of the total waste inventory

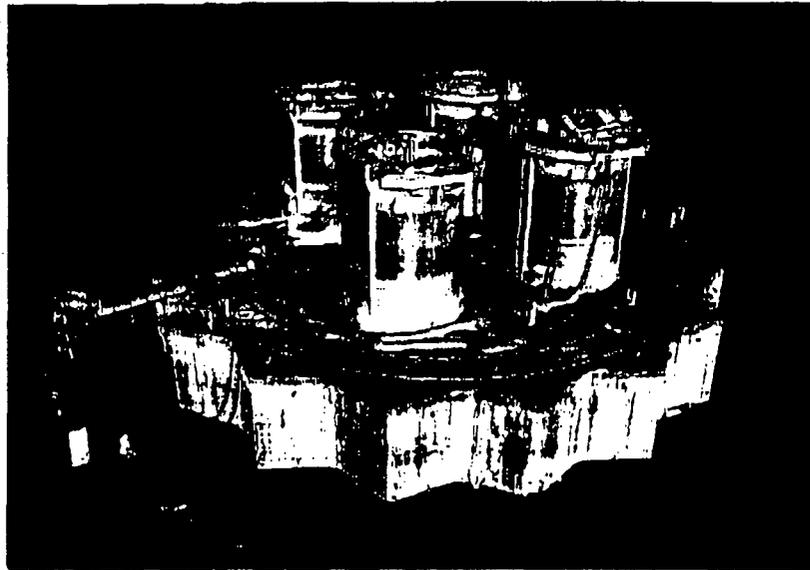
December 22, 1997
 Engineering News-Record
 Page 109 & 110
"BIG PROJECTS ENHANCE RECOVERY"
 By Gary J. Tulacz

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Overview

BIG PROJECTS ENHANCE RECOVERY



HIBERNIA Kiewit managed construction of offshore gravity base structure

THE CANADIAN CONSTRUCTION MARKET has slowly been recovering from its deep recession of the early 1990s. But it continues to provide major opportunities for well-positioned international contractors. And recent developments, especially in the petroleum and petrochemical markets, should increase the interest of international contractors.

The nation's overall market continues to improve, according to a recent forecast by CanaData, a Toronto-based construction economic and forecasting group. It anticipates significant gains in 1997 and 1998 across a wide variety of construction markets, says Alex Carrick, an economist with CanaData. The volume of work has contractors worried about labor shortages, especially in Alberta.

The biggest gains are in the industrial sector, where CanaData predicts a 25% increase in starts by sq ft by the end of 1997, followed by a 5.9% increase in 1998. CanaData also projects that 1997 will see a 12% rise in total square footage for commercial starts, followed by a 5.5% rise in 1998. Total infrastructure investment this year should top 1996's investment by 12.7%, with further increases of 6.5% in 1998 and 5.8% in 1999. The only

loser is institutional starts, which CanaData forecasts will drop from 19.5 million sq ft in 1996 to 17 million sq ft in 1997 and 18 million sq ft in 1998. Hospital closings have affected this market, says Carrick.

The area of the biggest interest for international contractors is the province of Alberta. It has "\$28 billion in construction projects announced over the next five years," says Rick Robinson, vice president of construction with Fluor Constructors Canada, Calgary. "That figure could rise to \$42 billion over the next five to six years," he says.

The focus of much of this activity is the tar sands oil fields in the Fort McMurray area. Among the projects planned are a \$2-billion development by Suncor, a

\$1.5-billion development by Syncrude and a proposed \$1-billion development and \$1.2-billion refinery expansion by Shell. There also is speculation that Mobil will be expanding its operations in the area.

Petrochemical expansions are also on tap in the region. "There are expansions in a variety of petrochemical plants around Calgary and Red Deer," says Carrick. These include ethylene and polyethylene plant expansions for Nova Corp. and Union Carbide, with other plant upgrades planned by Dow and Amoco.

The mining market continues to be a mainstay in Canada, but some of the biggest potential projects have run into delays. "Voisey's Bay in Newfoundland is potentially the largest nickel deposit in the world, but environmental studies and negotiations over native rights have delayed the project for at least a year," says Ahmet Erdogan, manager of information for Bechtel Canada Inc., Toronto.

In addition to nickel, uranium mining continues to provide a steady stream of work in Saskatchewan and the Northwest Territories, says Ross A. Grieve, chief executive officer of PCL Construction Group Inc., Edmonton. There also have been diamond discoveries in Labrador and in the Northwest Territories with major construction potential, says Erdogan.

With completion of the huge Hibernia oil rig off the coast of Newfoundland, new offshore facilities are being

	1996	1995
Bechtel International Inc.	183.9	183.9
Fluor Constructors Canada	42.0	42.0
Parsons Brinckerhoff	41.9	41.9
Stantec Inc.	28.4	28.4
WSP P	13.0	13.0
Parsons Group	7.0	7.0
URS	6.2	6.2
URS Group Inc.	6.0	6.0
Moore Group	6.0	6.0
Stantec Group Inc.	5.8	5.8
URS	5.1	5.1
Parsons & Merrill LLP	4.8	4.8
Parsons Group Inc.	4.0	4.0
URS & Partners	3.8	3.8
URS	3.1	3.1
Parsons Group Inc.	2.5	2.5
URS Global Inc.	2.4	2.4
URS	2.0	2.0
Parsons & Constructors Int'l	2.0	2.0
URS Corp.	1.5	1.5
URS Design Firms	284.2	284.2

NA—Not available

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"BIG PROJECTS ENHANCE RECOVERY"

By Gary J. Tulacz

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planned or are about to start up. An oil consortium led by Petro Canada will begin building the Terranova floating production storage and offloading facility by the end of this year, says Grieve. White Rose, a similar project, should be ready for construction by the end of 1998 or the beginning of 1999, he says.

Commercial work across Canada also is hot, with downtown office vacancy rates falling rapidly in Calgary, Vancouver, Regina and Toronto. "Developers are more financially stable than they have been and that is leading to an increase in the office building market," says Carrick. "And there is a lot of pension money going into shopping center development."

Entertainment and hospitality also have been strong markets. A new arena has been announced for the Toronto Raptors basketball team and there is talk of a new hockey arena for the Toronto Maple Leafs, Carrick notes. The casino, hotel and motel, and convention markets also are hot, and there are a series of Alpine villages going up in Quebec.

On the manufacturing side, the auto industry continues to build, especially in Ontario. "But the major expansions of primary assembly facilities are already under way," says Carrick. From the standpoint of new projects, "It is mostly in the smaller parts-making plants."

Another interesting market is grain processing. The "Crow Rates," government subsidies for transporting grain for the export market, are being phased out, says Grieve. This is causing a shift in emphasis among grain producers toward value-added products, resulting in a surge of new grain processing facilities, he says.

Transportation has been on a steady upswing. "We are seeing interest across the board," says Gerald Pfeffer, vice president of Kiewit Construction

Top Int'l Contractors by Region—Canada

	Revenue (\$ millions)		
	1996	1995	1994
1. McDermott International Inc.	383.0	240.7	230.4
2. OTM-Entrepose	322.0	303.0	224.0
3. Kiewit Construction Group Inc.	289.1	300.8	231.6
4. Ellis-Don Construction Inc.	233.9	252.8	231.5
5. Fluor Daniel Inc.	201.0	117.0	138.0
6. The Kvaerner Group	176.0	NA	NA
7. Bouygues S.A.	168.0	177.0	142.0
9. Bechtel Group Inc.	153.0	48.0	8.0
9. J.S. Alberici Construction Co. Inc.	112.0	128.2	300.0
10. Tarmac PLC	87.0	0	NA
11. Heill & Woerner Bau AG	80.9	41.0	25.0
12. Ballast Nedam International BV	80.7	51.7	44.9
13. Shimizu Corp.	69.0	19.0	1.0
14. KTI Corp.	45.5	0	0
15. NEPCO	45.0	37.0	NA
16. Brown & Root Inc.	44.8	41.7	82.8
17. OGELEC	42.0	66.0	48.0
18. Taiyaha Ltd.	24.4	0	0
19. Lurgi AG	21.7	0	0
20. The Turner Corp.	20.2	8.8	0
21. Philipp Holzmann AG	20.0	21.0	4.7
22. Aoki Corp.	20.0	1.0	3.2
23. Manberg & Thorsen AS	19.0	0	0
24. Dyckerhoff & Widmann AG	17.0	15.0	11.0
25. Raytheon Engineering & Constr. Int'l	17.0	0	0
TOTAL—Top 25 Contractors	2,802.0	2,232.8	3,230.3

NA=Not available

Group, Omaha. "It's hard to pinpoint a particular region, since the activity is all across the country." Kiewit recently completed a rehabilitation of the Thousand Islands Bridge in Ontario. There also is talk of major upgrades of the Lions Gate Bridge in Vancouver and the Peace Bridge in Ontario, says Carrick.

As in the U.S., the Canadian power market has been in a lull. "We've had

a few interesting hydro projects in British Columbia," says Ernie Elko, president of Peter Kiewit Sons Canada, Vancouver. But major power producers are waiting to see the impact of U.S. utility deregulation. "British Columbia Hydro, Ontario Hydro and Hydro Quebec want access to U.S. markets and are waiting to see how the cross-border grids develop under deregulation," says Carrick.

One of the major barriers to entry for international contractors is that Canada is a mature construction market. "The local players in the market are very strong," says Bechtel's Erdogan. "It takes time to build the relationships to make an impact in this market," he says. In addition, prices are very competitive. "It is very difficult for an outsider to come in and try to beat the local prices," Erdogan says.

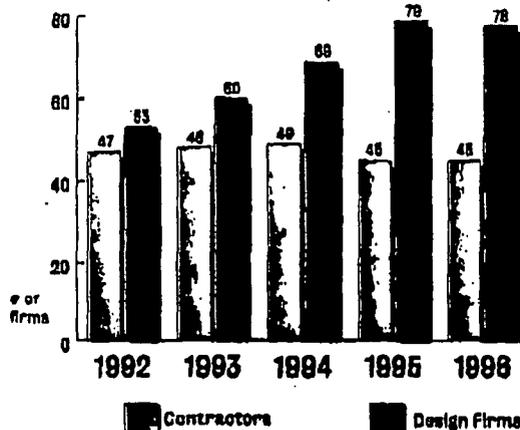
Most international contractors operating successfully in Canada agree that local relationships are critical. "We have been operating in Canada since 1941," says Kiewit's Pfeffer. "Our offices are incorporated in Canada and our management is Canadian. So we consider ourselves a Canadian company in Canada, not a U.S.-based international contractor," Pfeffer stresses.

Local relationships are necessary not just for marketing, but for operations as well. Each province has its own economy, rules and culture. "Unless you are regionally organized, it will be very difficult to operate successfully," says Erdogan.

"We've seen few new players in the market," says Stephen Kushner, president of the Merit Contractors Association, Edmonton. Most of the contractors based outside of Canada who have been finding success are the ones that have been operating in the country for many years or come in to fill a niche in the market, he says.

By Gary J. Tulacz

Top International Firm Activity in Canada



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 "Oil Boom Not Letting Up"
 By Jay Kraker

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PETROLEUM

Global Overview

OIL BOOM NOT LETTING UP

ENGINEERS AND CONTRACTORS WORKING the oil patch have a gusher on their hands.

Investment for upstream exploration and production, which includes well development, production platforms and pipelines, will likely top \$80 billion this year, estimates Salomon Brothers. Demand growth, new recovery technologies and burgeoning international trade all are triggering spending worldwide. While investment outside the U.S. is growing at a 20% rate, the U.S. market is expanding at a 14% pace. A Salomon analyst predicts the global growth rate for 1998 will come down to 14 or 15%.

Since its breakup, the former Soviet Union (FSU) has become one of the world's largest theoretical hydrocarbon markets. It is materializing, but at an uneven pace. "Most of the dollars spent on new development over the next couple of years (in the FSU) will be in the Caspian," predicts Larry Farmer, president of Brown & Root

Energy Services. He notes that Kazakhstan and Azerbaijan are embracing participation by international oil companies, as evidenced by growing production from Tengiz.

As for Russia itself, Farmer believes development will most likely be internal. "Russia can't let go. They're smart people...but [international oil companies] are not confident they'll break into Russia in a meaningful way."

Farther "downstream," in refining and petrochemicals, ML Payton Consultants, Houston, estimates capital spending at \$24 billion over the next five years for primary petrochemicals, 60% of that on ethylene alone. Intermediates will provide the second largest chemical market, with nearly \$10 billion in new awards.

Despite the recent economic upheavals in Asia, "Most capacity expansions will take place in the Far East and Southeast Asia," says Mark Payton, president of ML Payton. "In petrochemicals, we estimate that

those two areas will represent 37% of new spending, while Latin America and the Middle East will account for 13% each."

In North America, spending on petroleum and chemical products remains healthy but is losing steam.

That market dip could be replaced by refinery work. Optimism among contractors is especially strong in Venezuela, which several compare to Saudi Arabia in the early 1970s.

Enhanced oil recovery technology is making development of the country's heavy crude reserves increasingly attractive. For the first such Venezuelan project, Conoco and Meraven have awarded a \$500-million contract for heavy crude processing facilities to Contrina, a joint venture of U.S. firms Brown & Root and Parsons Process Group, France's Technip, and Venezuela's Proyecta and DIT-Harris.

Some Latin American heavy crude will be processed in Gulf Coast refineries, creating more work there as well. "We hope to see three to six coker units going in along the Gulf Coast," says Tom J. Nardi, vice president of Bechtel's North American petroleum and chemicals business. □

By Jay Kraker

Top Int'l Contractors—Petroleum

	Revenue (\$ millions)		
	1996	1995	1994
1. Fluor Daniel Inc.	2,573.7	2,176.0	1,326.9
2. The Kvaerner Group	1,673.7	NA	NA
3. Bechtel Group Inc.	1,656.8	1,614.2	1,009.3
4. Foster Wheeler Corp.	1,515.0	1,337.8	842.8
5. TECHNIP	1,388.4	1,471.4	1,343.3
6. JGC Corp.	1,332.8	1,633.8	1,740.4
7. Brown & Root Inc.	1,243.8	1,103.9	744.5
8. Chiyoda Corp.	1,238.7	1,619.3	1,758.9
9. McDermott International Inc.	1,119.4	1,038.3	1,098.0
10. ABB Lummus Global Inc.	1,045.7	697.0	794.0
11. Mitsubishi Heavy Industries Ltd.	878.0	1,047.7	578.9
12. The M.W. Kellogg Co.	869.8	928.8	872.5
13. Snamprogetti SpA	800.3	669.1	462.8
14. Toyo Engineering Corp.	659.8	1,493.6	1,691.8
15. Bouygues S.A.	611.1	683.7	443.7
16. Daewoo Engineering Co. Ltd.	578.1	351.8	386.9
17. Consolidated Centra. Int'l Co. S.A.L.	557.9	716.0	538.3
18. Technip Group of Construction	497.8	339.6	65.3
19. Samsung Engineering Co. Ltd.	441.8	238.9	141.8
20. Chicago Bridge & Iron Co.	388.8	240.2	288.1
21. Heerema Fabrication Group BV	380.0	NA	NA
22. Technip SPA	377.2	491.9	499.7
23. Raytheon Engineering & Constr. Int'l	357.2	405.1	620.5
24. Odabrecht SA	326.5	180.4	181.8
25. Stone & Webster	315.1	15.7	55.4
TOTAL—Top 25 Contractors	29,367.0	24,035.4	57.4

NA=Not available

Top Int'l Design Firms—Petroleum

	Revenue (\$ millions)		
	1996	1995	1994
1. ABB Lummus Global Inc.	488.1	443.0	368.0
2. Brown & Root Inc.	468.4	261.4	343.2
3. McDermott International Inc.	378.7	371.4	301.1
4. The Kvaerner Group	355.0	NA	NA
5. Foster Wheeler Corp.	223.7	205.7	98.9
6. JGC Corp.	212.9	34.3	55.6
7. The M.W. Kellogg Co.	201.5	94.8	55.4
8. Technip	188.8	161.8	161.1
9. Fluor Daniel Inc.	171.1	189.8	267.0
10. Snamprogetti SpA	162.9	122.4	89.8
11. Bechtel Engineering Co. Ltd.	145.1	18.8	18.8
12. Raytheon Engineering & Constr. Int'l	113.4	227.0	100.8
13. SNC-Lavalin International Inc.	88.8	110.7	55.7
14. Fluor Daniel Inc.	88.5	118.8	98.8
15. TECHNIP	81.0	42.7	55.4
16. Stone & Webster	76.5	217.3	88.5
17. The Parsons Corp.	68.8	70.9	61.1
18. Samsung Engineering Co. Ltd.	63.2	43.4	16.1
19. ABB Inc.	66.0	61.8	35.6
20. JGC Engineering Co. Ltd.	49.3	47.0	55.0
21. Pipeline Engineering GmbH	47.0	48.0	48.4
22. Technip Group Int'l	45.8	58.8	49.8
23. PT. A. Handayani Constra.	34.8	40.3	39.8
24. Bechtel Engineering Co. Ltd.	34.4	27.0	14.4
25. Stone & Webster	23.3	10.3	8.8
TOTAL—Top 25 Design Firms	4,117.1	3,014.5	2,448.4

NA=Not available

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"After McCraw, Fluor Changes Tack"

By Richard Korman

NEWS SITE DECEMBER 22, 1997

Companies

AFTER MCGRAW, FLUOR CHANGES TACK

Five days after Fluor Corp. Chairman Les McCraw announced his retirement for health reasons, Fluor's board and top managers moved quickly to undo many of the changes McCraw had put in place in 1994 and 1995. Diversification and a flat organizational structure are out. Core businesses and a traditional chain of command are in.

In addition, Fluor will slash spending, from \$650 million in 1997 to \$450 million, and likely reduce the number of offices and possibly personnel in its Fluor Daniel subsidiary in a continuing effort to cut costs.

"I don't think you can look at this any other way than that they are dismantling the previous organizational structure," says Richard Rossi, an analyst with Schroder & Co. Inc, an investment company.

McCraw, 63, has held the top job for seven years, but he has bladder polyps that recently were diagnosed as malignant. He has spent much of the last 18 months in South Carolina, his principal residence. "I'm going to focus on getting well, and being a grandfather," says McCraw.

Board Member Peter J. Fluor will serve as nonexecutive chairman and the company's top executives will report to him.

NEW LEADER. The board has hired an executive search firm to recruit candidates for the top post. Two of the three executives reporting to Fluor are leading internal candidates for the chief executive's job: James Rollans, Fluor Corp.'s chief administrative officer, and Don Blankenship, chief executive of the company's highly profitable coal subsidiary, A.T. Massey Coal Co.

The company's new leaders will have their hands full trying to find a formula that will replicate the steady earnings growth of McCraw's early years on the job. With Asian economies in turmoil, the Irvine, Calif.-based behemoth no longer can be confident about a steady flow of industrial and power projects.

Fluor's stock (FLR-NYSE) rose slightly on news of the reorganization plan.

The company is considering selling its profitable equipment subsidiary, American Equipment Co., as part of the new focus on core engineering and construc-

tion businesses. Fluor has invested heavily in the equipment company, whose margins generally are higher than its E&C businesses. American Equipment provides the majority of the Diversified Services group's \$65 million in revenue. One analyst has put the equipment subsidiary's market value at \$450 million.

Other units of the company also may be considered for sale, with the exception of A.T. Massey.

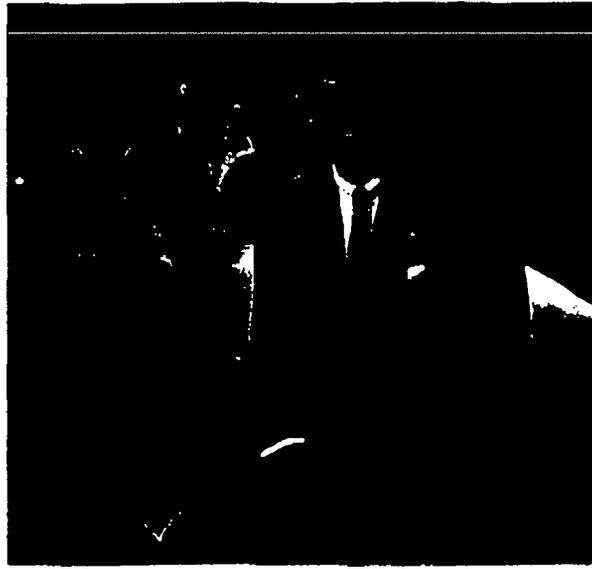
If the equipment unit is sold, the proceeds will be applied to a stock repurchasing plan, a measure intended to drive up the value of the company's shares, according to the company.

James C. Stein, president of Fluor Daniel, says his unit has been realigned into four market-focused segments with the most growth potential. In an effort to simplify management, only the heads of each of the units will report to Stein or levels close below them. Under McCraw's reorganization, numerous field and regional sales offices were opened and many regional leaders reported to top managers.

How McCraw's tenure will be regarded is unclear. He led the company into an unprecedented period of earnings growth and watched its stock climb to new heights, hitting \$75 during the stock market boom of 1996. But McCraw's latest reorganization and expansion drive dramatically increased the company's costs just as earnings started to slip, and the combination forced Fluor to cut \$100 million in costs in the last year. But when the company announced last month that earnings at Fluor Daniel would fall \$100 million below estimates, Fluor Corp.'s stock hit a low for the year of \$33.50.

One big mutual fund, Fidelity, has used the opportunity to increase its stake in Fluor over the year to 13%. But industry sources believe Fluor's new leader must put up the numbers that will convince investors that the company's suit-profitable businesses are worth betting on. □

By Richard Korman



FAREWELL McCraw retires from top job with health trouble.

tion businesses. Fluor has invested heavily in the equipment company, whose

NEW DIRECTIONS FOR FLUOR

► **Noncore business sales**

American Equipment Co. (equipment sales and leasing) is currently the leading candidate for sale. But TRS International Group (temporary personnel) may be next in line.

► **Streamlined structure**

Outgoing chief executive officer's 1994-95 organizational flattening and matrix reporting will be switched back to a more traditional chain of command.

► **Chief executive search**

Leading internal candidates: Chief Administrative Officer James O. Rollans and A.T. Massey Chief Executive Officer Don Blankenship.

SOURCE: Fluor Corp., 1997

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 "Where to find the Top 225"
 By Debra K. Rubin

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THE TOP 225 INTERNATIONAL CONTRACTORS

WHERE TO FIND THE TOP 225

FIRM	RANK	FIRM	RANK	FIRM	RANK	FIRM	RANK
ABC		C.M.B. s.r.l.	224	JKL		Rev-See Engineering Agency	132
ABB Lummus Global Inc.	39	CMC di Ravenna	147	Jacobs Engineering Group Inc.	46	Rizani de Ecoher SPA	169
ABB BAE Badami SPA	58	Consolidated Contr. Int'l Co. SAL	28	JDC Corp.	79	Benito Roggio S N/pe SA	221
J.S. Alberici Construction Co. Inc.	118	Construction Management Tech.	219	JGC Corp.	24	STUV	
AMEC PLC	27	Construtora Andrade Gutierrez SA	68	Joannou & Paraskevaldes Overseas Ltd.	61	Bede-Compagnie Generale de Travaux D'Hydraulique	148
Ansaldo SPA	17	Contract International Inc.	180	Kajima Corp.	12	Balini Contractor SPA	152
Aoki Corp.	41	Coastal Group PLC	75	Kardemko Co. Ltd.	222	Bamsung Engineering Co. Ltd.	58
Arabian Construction Co. SAL	187	CTCI Corp.	181	Keller Group plc	35	S.B.S.M. & Sica Construc S.A. (BBSD) SA	62
ARB Inc.	217	Cubiertas y Mzov SA	94	The M.W. Kellogg Co.	68	Bezal Turkes Fyoz Akdaye Construction Co.	103
Astar SPA	97	DEF		Kiewit Construction Group Inc.	78	OCG	7
Atkinson	139	Daellm Engineering Co. Ltd.	54	Kindan Corp.	127	Shimizu Corp.	29
BACHY	88	Daewoo Corp. Engineering & Const.	30	Kitchell Corp.	182	Shimizu Engrg. & Const. Co. Ltd.	77
Balfour Beatty Ltd.	47	Diak Corp.	171	Koo KG	194	Simons International Corp.	172
Bellat Nedam International BV	39	Dillingham Const. Holdings Inc.	129	KMO TRUBZENIK	198	Sinopco Engineering Inc.	218
Beniere Foundation Inc.	146	Dongsh Construction Ind. Co. Ltd.	42	Koil Construction	206	Skanska AB	11
Bentley Engineering Inc.	208	Dongfang Elevator Corp.	67	Konarka Construction Co. Ltd.	133	Snamprogett SPA (MBar)	43
Bauer Spezialtiefbau GmbH	110	Dragados FCC International	48	KYI Corp.	131	SOIMA SPA	178
Beytur Const. & Contracting Co.	180	Dyckerhoff & Widmann AG	74	Kumagai Gumi Co. Ltd.	89	Soih Bonah International Ltd.	122
Bachtel Group Inc.	8	EEL Corp.	213	The Kvaerner Group	1	SOLETANCHE	61
Beijing Chang Chang Const. Corp.	187	EIFFAGE	48	John Laing PLC	96	Seangyong Engrg. & Const. Co. Ltd.	78
Beijing Urban Const. Group Co.	212	Elite-Dan Construction Inc.	68	Laighton Holdings Pty. Ltd.	69	Shing Ltd.	73
BE&K Inc.	209	Energoprojekt Group	157	LG Engineering Co. Ltd.	93	Stone & Webster	70
Bellef SPA	91	Engl-Soc. de Construcio Civil SA	191	Adolf Lupp GmbH - Co. KG	198	STRABAG AG	38
Bilfinger + Berger Bau AG	10	ENKA Const. & Industry Co. Inc.	102	Lurgi AG	25	Structure Tone Inc.	150
Black & Veatch	62	Ferrovial	92	MNO		Sundt Corp.	182
Bonatti SPA	138	Fiatiprest SPA	109	Maeda Corp.	84	Sverdrup Corp.	205
Bouygues S.A.	4	Fischer Challenge Construction	32	McConnell Dowell Corp. Ltd.	89	Tafelberg Ltd.	52
Bovis Construction Group	14	Fluor Daniel Inc.	3	McDermott International Inc.	29	Taisei Corp.	37
Brown & Root Inc.	15	Fomento de Construcciones y Contratas SA	101	James McHugh Construction Co.	87	Takasago Thermal Engrg. Co. Ltd.	108
Burbat Industrial S.A.	169	Foster Wheeler Corp.	18	Mitsumaru Marine Construction Inc.	188	Takanaka Corp.	33
Butler Construction	211	Fujita Corp.	128	Mitsubishi Heavy Industries Ltd.	2	Takanaka Engineering & Construction Co.	198
CEGELEC	20	GHI		Mitsui Construction Co. Ltd.	87	Tarmac PLC	63
Charles Apostolides & Co. Ltd.	204	GAMA Endusri Teateler (Imalat Ve Montaj)	111	Mitsui Ltd.	130	Taylor Woodrow Construction	90
Chicago Bridge & Iron Co.	63	Gemmo Implant SPA	210	Momborg & Thorsen AS	180	Techint Group of Construction	59
China Civil Engrg. Const. (CCECC)	124	Global Industries Ltd.	185	Morrison Knudsen Corp.	81	TECHNIP	10
China Fullan Corp. for Int'l Tech.-Econ.	183	Grand Lavori Piroosk SPA	173	Murray & Roberts Contractors	114	Tecniss Reunidas S.A.	98
China Harbour Engineering Co.	66	Grandi Lavori Piroosk SPA	173	National Building Const. Corp. Ltd	223	Teconimors SPA	71
China Int'l Water & Electric Corp.	148	Grant Construction Co.	203	National Petroleum Const. Co.	141	Tekden Const. & Installation Co.	104
China Jianguo International Econ.-Technical Coop.	142	Grant Leka Dredge and Dock Co.	189	Ginec Navarro Construcciones S.A.	180	TEKSEN Construction Industry and Trading Inc.	120
China Jilin Int'l Econ. & Tech.	161	Grupo Dipenta Construcio	225	NCC AB	45	Yos Corp.	123
China Liaoning Int'l Corp. of Econ. & Tech. Coop.	156	OTM-Entrepose	8	Nishimatsu Construction Co. Ltd.	44	Toda Corp.	100
China Metallurgical Const. (Group) Corp.	203	A. Hak Nederland B.V.	126	Nissen Construction Co. Ltd.	188	Tokyu Construction Co. Ltd.	115
China Nat'l Complete Plant	139	Hella Engineering & Const. Corp.	189	Obayashi Corp.	31	Toyo Engineering Corp.	31
China National Chemical Engrg.	159	Hanjin Engineering & Const. Co. Ltd.	116	Odebrecht SA	40	TRE PI SPA	200
China National Overseas Engrg.	143	BIM Harbert Int'l Const. Inc.	131	PQR		Turan Hanelnedergrh Construction Trade Inc.	134
China National Machy. & Equip.	95	Hazama Corp.	55	The Parsons Corp.	90	The Turner Corp.	178
China Nonferrous Metal Industry's	170	HBO. Hollandsche Beton Groep nv	18	Paul Y.-JTC Const. Holdings Ltd.	119	Turan-Saliba Corp.	181
China Petroleum Engrg. Const.	135	HCB Contractors	199	PCL Constructors Inc.	83	Valdeke ASA	183
China Railway Construction Corp.	144	Heerema Fabrication Group B.V.	68	Penta-Ocean Construction Co. Ltd.	57	WXYZ	
China Road & Bridge Corp.	113	Hellit - Woerner Bau-AG	106	Per Aarsleff A/S	163	Walbridge Aldinger	218
China Shanghai Corp. for Foreign Econ. Tech.	145	Hochtief AG	8	Pertini Corp.	220	Worss & Frazee AG	60
China Shenyang Corp. for Int'l Econ. & Tech.	184	Hoffman Corp.	189	E. Pihl & Son A.S.	158	Wiener & Trostke	162
China Sichuan Int'l Coop. Co. Ltd.	168	Philipp Holzmann AG	9	Riscan Engineering Barfad	201	YIT Corp.	107
China State Const. Engrg. Corp.	34	Hyundai Engrg. & Const. Co. Ltd.	22	Pri-Das Mehra Inc.	215	H.B. Zachry Co.	187
China Wenzhou Engineering Corp.	140	Hyundai Engineering Co. Ltd.	22	POSCO Engrg. & Const. Co. Ltd	179	Ed. Zubita AG	84
China Wu Yi Corp.	128	Ibberson Inc.	177	Preussag Noell GmbH	73	Zum/NEPCO	174
China Zhongyuan Engrg. Corp.	154	ICF Kaiser International Inc.	183	Preziosa Group	175		
Chiyoda Corp.	13	IMPREGILO SPA	23	Raytheon Engineering & Constructors Int'l	50		
		Intecsa-Whita Industrial SA	214	RECCHI SPA Construcio General	106		
		IPCO Group	118				
		IRCON International Ltd.	187				

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 "Work Follows Resources"
 By Debra K. Rubin

INDUSTRIAL PROCESS

Global Overview

WORK FOLLOWS RESOURCES

INDUSTRIAL PROCESS PLANTS MAY NOT be pretty, but they're a pretty important catalyst for growth in many countries and a pretty decent market for global design firms and contractors.

The Kvaerner Group counts more than 90 current industrial projects in China, mostly for foreign investors. The firm also has numerous local clients. "We don't have problems getting paid," says David Moorhouse, executive vice president of Kvaerner John Brown E&C Ltd.

Asia's financial jitters don't seem to be bothering The M.W. Kellogg Co., which has a contract with Exxon Corp.'s chemicals unit to build an olefins plant in Singapore on reclaimed land. "We are going to ride out the currency storm," says Rebecca Johansson, manager of communications. "We're part of the solution, helping clients generate revenue."

SNC-Lavalin International Inc. is finding its profitable niche in Africa, in metals processing engineering. Last year alone, the firm won design contracts for

billion-dollar-plus aluminum smelters in South Africa and Mozambique. "We've been in Africa a long time and this is the best the region has looked since the 1970s," says CEO Jacques LaMarre.

Increasingly, process industry engineers are being tasked with making facilities environmentally friendly. "Nobody is going to lend money unless they know that the environment is going to be protected," says Ronald R. Nolan, president of Hatch Associates Ltd. The firm is implementing the more benign hydrometallurgical technology in metals plant upgrades in South America.

Firms plying the the chemical process market in the U.S. will find solid capital investment at least through 1998, says the Chemical Manufacturers Association. CMA has not completed its survey tally, but data so far show median capital investment levels up about 6.5% in 1997. Planned investment will increase 9.5% in 1998, and another 3% in 1999. "It appears that the acceleration in spend-

ing is going to continue for another year, before tapering off in 1999," says T. Kevin Swift, CMA senior economist. "This is somewhat surprising, in that we expected more investment this year and then a tapering off in 1998."

Survey results show that internationally, chemical firms are spending a lower percentage of their capital dollar in Western Europe, while increasing their investment in Central and Eastern Europe and China, Swift says. Spending levels in the rest of Asia and in Canada "are holding their own," he says.

Forest products companies have largely focused on Asia for capital spending in the pulp and paper processing market. In North America, the market is near its cyclical supply-and-demand low point, while Asia presents a huge new potential consumer base and access to natural resources. But the North American market may turn around in 1998 or 1999. "There is talk of several significant projects in Alberta and British Columbia before the decade is out," says Ross A. Grieve, CEO of PCL Construction Group Inc., Edmonton. That may be a mixed blessing for some. "Our fear is that pulp and paper will come back as the general economy goes south," says BE&K Inc. president Mike Goodrich.

By Debra K. Rubin

Top Int'l Contractors—Industrial

	Revenue (\$ millions)		
	1996	1995	1994
1. The Kvaerner Group	4,224.1	NA	NA
2. Fluor Daniel Inc.	1,748.2	1,288.8	818.8
3. Bechtel Group Inc.	888.8	881.2	584.5
4. Takemaka Corp.	747.1	0	0
5. Jacobs Engineering Group Inc.	622.2	618.7	65.4
6. Philipp Holzmann AG	654.3	480.7	414.8
7. GTM-Entrepose	408.4	307.7	151.0
8. Brown & Root Inc.	347.3	42.4	8.7
9. The M.W. Kellogg Co.	280.0	29.0	48.9
10. TEDHNP	277.3	178.1	739.0
11. OGELEO	268.1	225.8	320.0
12. SGE	249.8	237.8	NA
13. Foster Wheeler Corp.	248.3	128.4	180.2
14. Bilfinger + Berger Bau AG	186.8	214.0	87.4
15. HCB, Heilandsche Beton Group NV	102.2	102.0	77.8
16. STRABAG AG	101.8	84.5	71.8
17. Mitsui Construction Co. Ltd.	98.7	0	0
18. Ballast Nedam International BV	94.8	85.8	260.1
19. JIQ Corp.	91.8	0	0
20. Chiyoda Corp.	89.8	290.8	0
21. Bovis Construction Group	88.4	14.4	60.7
22. Ashtrom	88.8	80.0	18.4
23. Kazama Corp.	78.2	0	87.1
24. Teconsa Reunidas SA	77.7	70.5	38.0
25. Telesat Corp.	66.4	37.2	11.1
TOTAL—Top 25 Contractors	18,038.0	7,400.0	7,850.5

NA=Not available

Top Int'l Design Firms—Industrial

	Revenue (\$ millions)		
	1996	1995	1994
1. The Kvaerner Group	366.0	NA	NA
2. Jaakko Poyry Group	228.0	203.5	224.7
3. Brown & Root Inc.	178.4	8.8	16.2
4. Jacobs Engineering Group Inc.	132.8	92.4	37.8
5. SNC-Lavalin International Inc.	130.4	22.8	48.4
6. Fluor Daniel Inc.	111.2	102.2	102.4
7. Simons International Corp.	104.3	83.8	68.8
8. Philipp Holzmann AG	80.8	7.4	43.4
9. The M.W. Kellogg Co.	87.2	0	3.0
10. Bechtel Group Inc.	85.8	11.8	8.0
11. Raytheon Engineers & Constr. Intl	80.8	0	30.3
12. Hatch Associates Ltd.	28.0	27.1	18.1
13. Sandwell Inc.	28.8	34.2	38.0
14. Foster Wheeler Corp.	22.7	42.8	10.7
15. JGC Corp.	18.4	0.8	0.3
16. Technip Group of Construction	13.5	10.0	0.3
17. JCF Kaiser International Inc.	11.7	7.0	8.8
18. Lester B. Knight & Associates Inc.	10.3	8.1	8.4
19. BE&K Inc.	10.1	0.7	NA
20. PT-Consulting Ltd.	10.0	8.8	NA
21. Morrison Knudsen Corp.	9.0	3.0	8.8
22. ASRA Inc.	8.8	8.8	78.7
23. Dar Al-Handasah Constra.	8.8	8.0	8.8
24. Molares/Hart Emvuth. Engrg. Corp.	7.8	8.8	8.8
25. TECHNIP	7.8	4.8	0
TOTAL—Top 25 Design Firms	1,780.1	874.4	1,238.8

NA=Not available

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Weapons Complex Monitor
Page 12

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"At Hanford.....Fluor Identifies Remedies to Correct Shortfalls"

AT HANFORD FLUOR IDENTIFIES REMEDIES TO CORRECT SHORTFALLS

Fluor Daniel Hanford has presented an action plan responding to deficiencies cited in both FDH's Critical Self Assessment and Richland Operations Office's independent critical assessment of FDH that for the most part, specifically identifies the new safety measures that have been put in place during the second year of the company's contract to manage the Hanford site. The two assessments, which covered the PHMC's first year of Oct. 1, 1996, to Oct. 1 1997, were remarkably in line with each other, with the notable difference that DOE ranked FDH "marginal" on safety as compared to the contractor's self-ranking of "good" (*WC Monitor*, Vol. 8 No. 43). In the action plan, submitted Dec. 1, FDH addressed this difference by outlining changing that the construction subcontractor MOWAT has recently made but also by promising to monitor the reforms throughout the year and review safety performance in monthly upper management meetings. The action plan also sets forth the new goal for leadership of better defining roles of various contractors and relationships among all Hanford parties—including contractors and the Department of Energy.

MOWAT Changes Safety Personnel

FDH reported that the construction company MOWAT, which had serious safety problems in the past with crane and rigging operations, has already replaced its Project Manager, hired a new safety officer, reassigned the previous safety officer, and hired a second shift safety

officer. MOWAT also has implemented a Safety Committee that promotes safety and reviews job-hazard analyses and material safety data sheets. A Safety Center Trailer has been implemented. A crane consultant has come in to review operations. And a crew has been dedicated for site clean-up.

Integrated Safety Management System at K Basins

FDH has also just recently initiated an Integrated Safety Management System. Spent nuclear fuel will be the first project to implement the ISMS at K Basins, with the system scheduled for full implementation by June 1, 1998. A comprehensive Rad Con improvement plan is being implemented by DE&S Hanford and FDH for the K Basins. The program spans all aspects of radiological safety, including procedures, training and practices. The plan has been fully implemented and the first performance report, which includes eight performance indicators, was issued Nov. 21. A plan is being implemented at the Basins to improve operational conduct and awareness of the technical safety requirements.

Leadership Needed as Site Changes to M&I

Both critical assessments had identified leadership as an area needing improvement, stressing the need for clear authority during a change from an M&O to an M&I performance-based contract. FDH's action plan pledges

that the contractor will clarify roles and responsibilities to refocus activities in support of projects and the assignment of the required staffing and resources to fulfill those responsibilities. FDH vows to align responsibilities be-

tween DOE Richland and the PHMC team, and influence a cultural change of all employees. FDH will provide regular progress reports throughout the year.

PAPER: LEAKS: NEXIS AL 12/23/97 13:29:00 Page 1

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Copyright 1997 Dayton Newspapers, Inc.

Dayton Daily News

December 19, 1997, Friday, CITY EDITION

SECTION: METRO TODAY, Pg. 4B

LENGTH: 563 words

HEADLINE: LEAKS PROMPT TRUCK SHIPMENT HALT

BODY:

ALBUQUERQUE, N.M. (AP) - The U.S. Department of Energy has halted shipment of low-level radioactive waste from an Ohio nuclear weapons plant after water was found leaking from boxes of debris on trucks in Nevada and Arizona.

The shipments are now heading back to Ohio through eight other states, including New Mexico, said Gary Stegner, spokesman for the DOE's Fernald nuclear weapons plant in southwest Ohio. The trucks were expected here Thursday or today, Stegner said.

"We'll make sure they are not leaking, and they will be shipped in a truck that will contain any leaking, should it occur en route," he said Thursday, adding it appears no radioactive material escaped as a result of the leaks in Arizona and Nevada.

The discovery brought an outcry from Nevada officials, who have been fighting DOE plans to store low- and high-level nuclear waste at sites north of Las Vegas.

They again raised questions of transporting waste cross-country.

One leak was found on a truck 20 miles east of Kingman, Ariz., the other four on three trucks that arrived Monday and Tuesday at the Nevada Test Site.

DOE spokesman Darwin Morgan said the material being shipped "does not pose any danger to human health or the environment." He said the debris included "sand used to filter radioactive waste, filter cakes from wastewater treatment operations and construction rubble."

The leaks, however, did lead the DOE to stop using the same containers in shipping from Fernald and to begin an investigation into the container failures. The DOE will determine why there was so much liquid in what was supposed to be dry waste and will invite state regulators to jointly inspect incoming waste shipments, Stegner and other DOE officials said.

Besides Nevada, Arizona and New Mexico, the shipments will cross Texas, Oklahoma, Missouri, Illinois and Indiana before reaching Ohio.

The leaks are the latest in "an unending stream of incidents," said Sen. Harry Reid, D-Nev.

FAXIVE LISTEN: NEXIS AL 12 23 97 00:14:54 Page 2

"This isn't the first incident, it's just the first made public. The DOE doesn't know what it's shipping or how it's shipping it."

"The DOE has again shown its inability to handle and transport radioactive materials safely," said Nevada Gov. Bob Miller.

Sen. Jeff Bingaman, D-N.M., believes some lessons learned from the still-unopened nuclear waste repository near Carlsbad, N.M., could be useful to the Fernald shipments.

Shipments destined for New Mexico's Waste Isolation Pilot Plant will be contained in casks that are far more secure than those used in the Fernald shipments, said Bingaman's spokeswoman, Kristen Ludecke.

When the leak was discovered at a truck stop near Kingman, other shipments were ordered checked by the DOE, according to Morgan.

"We want a full understanding of what happened with those boxes," Morgan said. "Was it a manufacturing problem? Was it a problem at the shipment site? We want Fernald to explain the liquids."

Reid said the material from Fernald is being dumped in unlined trenches at the test site, 65 miles north of Las Vegas, where the nation's nuclear weapons were tested from 1951 until 1992.

"It was all supposed to be dry material," Reid said. "Well, dry material doesn't leak out of trucks."

"There are no controls in place," he added. "This is low-level. But even though it's low-level it's still dangerous."

LOAD-DATE: December 20, 1997

PASADENA: DELETED HEADLINE AT 12:23/97 DATE: 12/23/97 PAGE: 3

11800

Copyright 1997 Albuquerque Journal
Albuquerque Journal

December 18, 1997, Thursday

SECTION: New Mexico & Metro; Pg. D1

LENGTH: 523 words

HEADLINE: Leaks Prompt Halt of Nuclear Waste Shipments

BYLINE: The Associated Press

BODY:

LAS VEGAS, Nev. — The U.S. Department of Energy has halted shipment of low-level radioactive waste from an Ohio nuclear weapons plant after water was found leaking from boxes of debris on trucks in Nevada and Arizona.

The discovery brought an outcry from Nevada officials, who have been fighting DOE plans to store low- and high-level nuclear waste at sites north of Las Vegas. They raised anew questions of transporting such waste across country.

One leak was found on a truck 20 miles east of Kingman, Ariz., the other four on three trucks that arrived Monday and Tuesday at their destination, the Nevada Test Site.

The shipments involve low-level radioactive waste from a nuclear weapons plant being dismantled at Fernald, Ohio.

Meanwhile, shipments to New Mexico of radioactive waste from nuclear weapons plants are scheduled to begin next spring.

The Waste Isolation Pilot Plant near Carlsbad would permanently store plutonium-contaminated trash from nuclear weapons production. For the waste coming to New Mexico, the DOE is planning to use specially designed shipping containers that it says are extremely sturdy.

DOE spokesman Darwin Morgan said the material from the Ohio plant "does not pose any danger to human health or the environment."

He said the debris included "sand used to filter radioactive waste, filter cakes from waste-water treatment operations and construction rubble."

He said it was unclear how water got into the debris.

The leaks are the latest in "an unending stream of incidents," Sen. Harry Reid, D-Nev., said Wednesday.

"This isn't the first incident, it's just the first made public," Reid said. "The DOE doesn't know what it's shipping or how it's shipping it."

Sen. Richard Bryan, D-Nev., called the latest development "alarming," noting the shipments pass through major Las Vegas intersections and across traffic-clogged Hoover Dam.

FILED: LEGIS. NEWS: AL 12 23 97 08:31:55 Page 4

"The DOE has again shown its inability to handle and transport radioactive materials safely," said Gov. Bob Miller.

When the leak was discovered at a truck stop near Kingman, other shipments were ordered checked by the DOE, according to Morgan.

The truck near Kingman did not contain any contamination and the contamination of the trucks at the Nevada Test Site "was very low," Morgan said.

Reid said the material from Fernald is being dumped in unlined trenches at the test site, 65 miles north of Las Vegas, where the nation's nuclear weapons were tested from 1951 until 1992.

"It was all supposed to be dry material," Reid said. "Well, dry material doesn't leak out of trucks."

Reid said problems with the Fernald shipment reinforce the argument against storage of high-level nuclear waste at Yucca Mountain, 100 miles north of Las Vegas.

Congress is wrestling with the problem of where to store the high-level nuclear waste, mainly spent fuel rods from the nation's nuclear power plants. A bill being considered would place the radioactive waste at the Nevada Test Site on an interim basis until Yucca Mountain is approved.

President Clinton has promised to veto any bill targeting Nevada for the temporary storage.

LANGUAGE: ENGLISH

LOAD-DATE: December 19, 1997

1180

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Greenwire

December 18, 1997

SECTION: WASTES AND HAZARDOUS SUBSTANCES

LENGTH: 425 words

HEADLINE: NUCLEAR WASTE: LEAKING SHIPMENTS RING NEW ALARMS

BODY:

In a development that has "raised anew" the debate over cross-country hauling of nuclear waste, the Energy Dept. on 12/17 halted shipments of low-level wastes from an Ohio nuclear weapons plant to the Nevada Test Site after several trucks were found to be leaking contaminated liquid along the way.

Water was found leaking from boxes of debris on a truck parked near Kingman, AZ, on 12/14. Four additional leaks were discovered on three other trucks that arrived at the test site on 12/15 and 12/16. The trucks were hauling the wastes, which included sand used to filter radwastes, filters used in wastewater treatment and construction rubble, from the Fernald, OH, weapons plant, which is being dismantled.

DOE spokesperson Darwin Morgan said that none of the transported material posed "any danger to human health or the environment," and that the contamination discovered on three of the trucks was "very low." The truck parked in Arizona showed no contamination (AP/New York Times, 12/18).

NEVADANS OUTRAGED

But the finding left Nevada leaders, who have vigorously opposed nuclear waste storage at the test site or at nearby Yucca Mountain, "outraged." Sen. Richard Bryan (D-NV) demanded that the DOE stop all radwaste shipments to Nevada pending an investigation. Nevada Gov. Bob Miller (D): "The DOE has again shown its inability to handle and transport radioactive materials safely" (Mary Manning, Las Vegas Sun, 12/17).

Sen. Harry Reid (D-NV) said the incident is unlikely to be the first of its kind, "it's just the first made public." The DOE's missteps with radwaste transportation show that it is unprepared to store "the most poisonous substance known to man" at Yucca Mountain, he said (AP/New York Times).

A NEW KIND OF GAMBLE IN LAS VEGAS

The leaking waste shipments traveled along US-95, "across traffic-clogged Hoover Dam" and "through major Las Vegas intersections," according to Bryan.

A spokesperson for Bechtel Nevada, which manages the Nevada Test Site, said the DOE's investigation of the incident will

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Las Vegas Review-Journal (Las Vegas, NV)

December 18, 1997 Thursday, FINAL EDITION

SECTION: B; Pg. 1B

LENGTH: 794 words

HEADLINE: DOE forms plan to stop leaks

BYLINE: Keith Rogers

BODY:
By Keith Rogers
Review-Journal

Department of Energy officials crafted an action plan Wednesday to answer demands from Nevada's senators about the discovery of leaking radioactive waste containers that arrived this week for disposal at the Nevada Test Site.

Letters to Energy Secretary Federico Peoa from Sens. Harry Reid and Richard Bryan, both D-Nev., called for a halt to low-level radioactive waste shipments from Fernald, Ohio, where soil and debris from a dismantled nuclear weapons uranium foundry is routinely trucked to the test site's disposal area, 90 miles northwest of Las Vegas.

'I told him I want all the shipments to the Nevada Test Site stopped,' Reid said in a telephone interview before he sent the letter to Peoa. The letter expresses the senator's 'distress with the way the Department of Energy is managing the disposal of low-level radioactive waste in Nevada.'

Peoa's office responded Wednesday night with a plan that says the department is:

Suspending use of metal boxes, like the five that leaked inside four different trucks, until the problem is resolved;

Conducting a thorough investigation of the container failures;

Inviting state regulators to conduct joint inspections of incoming waste shipments;

Working with Reid and Bryan to set up an independent review panel to investigate the condition of waste containers that have been put in unlined trenches at the test site.

Reid and Bryan bargained for other measures including a quality assurance review of waste containers and procedures at all government sites that ship radioactive waste to Nevada. They also requested an investigation of procedures and controls at Fernald 'to understand the details of what went wrong and how it went wrong.'

Waste water laced with radioactive uranium leaked from metal boxes inside

PAPER: 12/23/97 13:30 PUBLIC AFFAIRS → DOUG SARNO Page 3

four of seven trucks that arrived from Fernald at the test site's Mercury entrance Monday and Tuesday.

None of the waste water leaked from the rigs' trailers onto roads or highways, agency officials said. They said some of the water coming from cracks in the breached, metal boxes, however, was contaminated.

Energy officials said the radioactivity posed no danger to public health or safety. They did not know Wednesday the exact concentration of radioactive material in the water, but said detection instruments picked up slight activity.

On Tuesday, Energy Department officials mistakenly identified the manufacturer of the faulty, white metal boxes as Container Products Inc. But Wednesday, they said the leaky boxes were made by CGR Compacting Inc. A call to the company's office in North Adams, Mass., was not returned late Wednesday.

Meanwhile, another truck hauling low-level radioactive waste destined for the test site from Fernald leaked an uncontaminated liquid from the trailer while parked Monday at a truck stop near Kingman, Ariz. An Energy Department spokesman in Fernald, Gary Stegner, said investigators believe two of seven metal boxes in the trailer leaked.

He said the cargo, including boxes that were repaired with epoxy, will be loaded into a special, hazardous materials truck and hauled today back to Fernald.

The senators' concerns were echoed by Reps. John Ensign and Jim Gibbons, both R-Nev. They expressed doubt the Department of Energy can safely handle high-level nuclear waste proposed for disposal in Yucca Mountain, on the test site's southwestern boundary, given the agency's recent track record in shipping low-level radioactive waste. There have been eight previous leaks out of 23,249 similar shipments from Fernald since 1994.

Bryan, in his letter to Peoa, asked why 'significant quantities of liquid (are) present in containers not designed to hold liquids.' He also inquired about what notification procedures were followed.

'Were state and local law enforcement and safety agencies warned of the potential hazard posed by these containers?' Bryan asked.

Nevada Highway Patrol trooper Steve Harney said his agency was not contacted by the Department of Energy when leaking boxes were discovered this week at the disposal site.

Had the trucks been stopped and inspected before entering the test site, and highway patrol officers saw the leaking containers, the hauler and its company could have been issued citations even if no materials escaped the trailer rig, Harney said.

According to Vern Rosse, deputy administrator for waste programs for the state Environmental Protection Division, the state lacks authority over nuclear waste matters at the test site.

'It's one of those DOE situations where we don't have authority to regulate them. They regulate themselves,' he said, noting that the federal Environmental Protection Agency also lacks enforcement authority at the test site.

SEARCHED INDEXED SERIALIZED FILED DEC 23 1997 FBI - WASH DC

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The Plain Dealer

December 18, 1997 Thursday, FINAL / ALL

SECTION: NATIONAL; Pg. 14A

LENGTH: 531 words

HEADLINE: U.S.

BODY:

WASHINGTON, D.C.

SPACE MEDALS AWARDED

President Clinton yesterday awarded Congressional Space Medals of Honor to two of the three Apollo 1 astronauts killed while preparing for a moon mission in 1967. Clinton presented the medals to the families of astronauts Ed White II and Roger Chaffee in an Oval Office ceremony. They died Jan. 27, 1967, with astronaut Gus Grissom - who previously was awarded the medal - when their space capsule caught fire on a launch pad. The tragedy prompted NASA to institute a series of safety reforms.

DONT TELL

A tell-all book alleging philandering by President Kennedy sparked a sharp reminder to Secret Service agents past and present that protecting the president also means no tattling. In a letter Dec. 5 to 3,200 current and 500 former agents, Secret Service Director Lewis C. Merletti said interviews by four former agents on Kennedy's detail were "regardless of [their] accuracy, very troubling and counterproductive to the mission of the Secret Service." Tony Sherman, one of the agents quoted in Seymour Hersh's "The Dark Side of Camelot," called Merletti's letter "an insult."

COLORADO

NO VERDICT IN BOMB CASE

Denver - Jurors deliberated a second day without a verdict in Terry Nichols' trial yesterday as Oklahoma City bombing survivors and relatives bided their time by wrapping dolls, trucks and teddy bears for homeless children. The panel, which is not being sequestered, quit for the night after deliberating a total of 11 hours.

CONNECTICUT

NEEDLE PRICK IS COSTLY

New Haven - A jury awarded \$12.2 million yesterday to a doctor infected with the AIDS virus, finding that Yale University was negligent when the woman pricked herself with an infected needle as an intern nine years ago. The woman, who sued under the pseudonym Jane Doe, blamed the school for not properly training or supervising her when she was ordered to insert a blood line into the

PARMEX: LEE IS-NEZLES AT 12-23-97 13:31:58 PAGE 11

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arm of an AIDS patient. A lawyer said Yale would appeal.

FLORIDA

JUDGE: CUBA SHOULD PAY

Miami - A federal judge ruled yesterday that Cuba owes nearly \$200 million to the families of three Americans killed last year when Cuban fighter jets shot down two small planes in international airspace. Collection is doubtful because Cuba refused to recognize the court's jurisdiction. Four members of the Miami-based group Brothers to the Rescue who were searching for refugees on rafts were killed when Cuban MiGs shot down two private planes in the Florida Straits on Feb. 24, 1996. Three of them were U.S. citizens and eligible to sue under the U.S. law.

ARIZONA

RADIOACTIVE LEAK PROBED

Kingman - The U.S. Department of Energy said yesterday it wants to determine what caused a weld to split on a metal box containing radioactive trash before shipments are resumed to the Nevada disposal site. The trucked shipment was near Kingman when radioactive water leaked Monday along Interstate 40, officials said. DOE contracted with a hazardous-materials hauler to bring the failed metal container back to the department's Fernald site near Cincinnati to determine what caused the problem. Federal and state officials determined that the leak was not a public health threat.

LANGUAGE: ENGLISH

COLUMN: U.S.

LOAD-DATE: December 19, 1997

12/23/97 13:31 PUBLIC AFFAIRS → DOUG SARNO

Copyright 1997 DR Partners d/b/a Las Vegas Review-Journal
Las Vegas Review-Journal (Las Vegas, NV)

December 17, 1997 Wednesday, FINAL EDITION

SECTION: A; Pg. 1A

LENGTH: 794 words

HEADLINE: Radioactive shipment to Nevada Test Site leaked

BYLINE: Keith Rogers

BODY:
By Keith Rogers
Review-Journal

Waste water laced with radioactive uranium leaked from metal boxes inside trucks that arrived Tuesday at the Nevada Test Site from an Ohio nuclear weapons plant, Department of Energy officials said.

Liquids in the steel boxes containing contaminated sand and construction rubble from the dismantled Fernald, Ohio, plant leaked in four out of seven shipments that were sent this week to the government's low-level radioactive waste disposal area at the Nevada Test Site, 65 miles northwest of Las Vegas, they said.

At no time was public health or safety endangered, agency spokesman Darwin Morgan said at a briefing late Tuesday at the Energy Department's office in North Las Vegas.

Sen. Richard Bryan, D-Nev., Gov. Bob Miller and anti-nuclear activists seized the opportunity to castigate the federal government's plans to continue radioactive waste shipments in Nevada, including any shipments of high-level radioactive waste to the proposed repository in Yucca Mountain, on the test site's southwest boundary.

'We clearly have a major quality control problem,' Bryan said in a telephone interview. 'This is an alarming development because this all goes through the major thoroughfares of Las Vegas and across the (Hoover) dam.'

If the Department of Energy cannot manage its low-level radioactive waste program, then how can it manage high-level nuclear waste shipments, he asked, saying there would be 16,000 high-level shipments, many by road and some by rail.

'It's a major concern for the transportation of this material,' he said.

In a statement, Miller said that 'while there are no negative health impacts on the public in Nevada, the DOE (Department of Energy) has again shown its inability to handle and transport radioactive materials safely.'

Morgan said Fernald officials are 'trying to determine if there is some kind of defect with the boxes.' He described a crack, 2 inches long and one-eighth of

FAST: LPSIN: NEST: A: 12 23 97 08:31:57 Page 13

1180

an inch wide, that opened along a welded seam in one of the faulty waste containers.

He said until an investigation is complete and problems with the waste containers are resolved, the test site will not accept any more radioactive waste shipments from Fernald, the site of a former nuclear weapons materials production facility.

A test site scientist, Steve Mellington, said the boxes were manufactured by Container Products Inc., a Newman, Ga., company. Calls late Tuesday to the company were not answered.

Two of the three metal boxes that leaked inside trailers hauled to the test site Tuesday discharged a clear liquid that tested positive for contamination. Another shipment that arrived Monday at the test site also leaked contamination, but in all cases the leaks were contained inside the trailers.

On Monday afternoon, the driver of another semitrailer rig from Fernald that was destined for the test site noticed liquid dripping from his trailer while it was parked at a truck stop on Interstate 40, some 20 miles east of Kingman, Ariz. Department of Energy scientists from New Mexico tested the liquid that had escaped the trailer and determined it was not contaminated, Morgan said.

Steve Johnson, a Mohave County, Ariz., sheriff's spokesman, said a frontage road 'was blocked for a couple hours while they were checking it out.'

Morgan said the leaking container was sealed with epoxy and the truck a Tri-State Motor Transport Co. rig out of Joplin, Mo. is expected to continue today to the test site, where the metal box, 4 feet wide, 4 feet deep and 7 feet long, will be checked again for leaks before the container is disposed of in an unlined trench.

The disposal area is designed to hold only solid, low-level radioactive wastes.

'We are asking Fernald why they had this amount of liquid in this,' Morgan said.

A spokesman for the Fernald environmental restoration project did not return calls Tuesday.

Morgan said in the other cases where liquids leaked inside trucks at the test site, the levels of what agency scientists believe was 'depleted, and slightly enriched uranium residue' were barely detectable.

Since Nov. 1, 1994, the test site has received 23,249 containers of low-level radioactive waste from the Fernald plant. Of those, there were eight breaches of liquids or solids, he said.

Reinard Knutsen, a Las Vegas spokesman for an international, anti-nuclear group, the Shundahai Network, said members of his organization detected a leaking waste shipment last spring during a blockade at the test site.

'It does again show how these trucks carrying low-level nuclear waste are not safe for the communities they are passing through,' he said. 'This is another

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DANGER: LISTS-NEXTS AT 13:21:07 00:04:57 Page 14

reason why we're calling for stopping low-level waste shipments to the Nevada Test Site.'

LANGUAGE: ENGLISH

LOAD-DATE: December 18, 1997

1180

December 19, 1997

Journal News

A12

"Trucks heading back to Fernald"

Reporter: The Associated Press

Trucks heading back to Fernald

The Associated Press

ALBUQUERQUE, N.M.

The U.S. Department of Energy has halted shipment of low-level radioactive waste from the former Fernald uranium processing plant after water was found leaking from boxes of debris on trucks in Nevada and Arizona.

The shipments are now heading back to Ohio through eight other states, including New Mexico, said Gary Stegner, spokesman for the DOE's Fernald plant.

"We'll make sure they are not leaking, and they will be shipped in a truck that will contain any leaking, should it occur en route," he said Thursday. Stegner added that it appears no radioactive material escaped as a result of the leaks in Arizona and Nevada.

The discovery brought an outcry from Nevada officials, who have been fighting DOE plans to store low- and high-level nuclear waste at sites north of Las Vegas. They again raised questions of transporting waste cross-country.

One leak was found on a truck 20 miles east of Kingman, Ariz., the other four on three trucks that arrived Monday and Tuesday at the Nevada Test Site.

DOE spokesman Darwin Morgan said the material being shipped "does not pose any danger to human health or the environment." He said the debris included "sand used to filter radioactive waste, filter cakes from waste-water treatment operations and construction rubble."

The leaks, however, did lead the DOE to stop using the same containers in shipping from Fernald and to begin an investigation into the container failures.

The DOE will determine why there was so much liquid in what was supposed to be dry waste and will invite state regulators to jointly inspect incoming waste shipments, Stegner and other DOE officials said.

Besides Nevada, Arizona and New Mexico, the shipments will cross Texas, Oklahoma, Missouri, Illinois and Indiana before reaching Ohio.

The leaks are the latest in "an unending stream of incidents," said U.S. Sen. Harry Reid, D-Nev.

"This isn't the first incident, it's just the first made public," he said. "The DOE doesn't know what it's shipping or how it's shipping it."

Said Nevada Gov. Bob Miller, "The DOE has again shown its inability to handle and transport radioactive materials safely."

U.S. Sen. Jeff Bingaman, D-N.M., believes some lessons learned from the still-unopened nuclear waste repository near Carlsbad, N.M., could be useful to the Fernald shipments.

Shipments destined for New Mexico's Waste Isolation Pilot Plant will be contained in casks that are far more secure than those used in the Fernald shipments, said Bingaman's spokeswoman, Kristen Ludecke.

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KGMN/K-99

Fax:1-520-753-1978

Dec 18 '97 13:14

F.01

ATTN — DAVE

1180

AP V0650 RN 0AZ-N AZ-RADIOACTIVITY-TRUCK

12-18 9:29A

TEAM WORKING TO REMOVE RADIOACTIVE CARGO FROM TRUCK NEAR KINGMAN

(THANKS TO DAVE HAWKINS AT KGHN)

(KINGMAN) -- WORK'S BEGUN AT AN I-40 TRUCK STOP EAST OF KINGMAN TO REMOVE LOW-LEVEL RADIOACTIVE WASTE FROM A TRUCK.

THE DRIVER PARKED THE RIG MONDAY AFTERNOON AFTER NOTICING A LIQUID LEAKING FROM THE CARGO AREA.

THE COMPANY TRANSPORTING THE WASTE FROM A NUCLEAR WEAPONS PLANT IN OHIO TO A NEVADA DUMP SITE SAYS THERE'S NO CONTAMINATION OR SAFETY THREAT.

HOWEVER, IT SAYS AT LEAST ONE OF THE SEVEN CONTAINERS HAS LEAKED. SO, ALL OF THEM WILL BE REMOVED FROM THE TRUCK AND INSPECTED BEFORE BEING LOADED ONTO ANOTHER TRUCK AND DRIVEN BACK TO OHIO.

THE DEPARTMENT OF ENERGY YESTERDAY TEMPORARILY HALTED THE SHIPMENT OF THE WASTE UNTIL SHIPMENT PROBLEMS ARE INVESTIGATED AND CORRECTED.

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MEMBERS OF A SPECIAL EMERGENCY RESPONSE TEAM HAVE ENTERED A TRUCK HAULING LOW LEVEL RADIOACTIVE WASTE THROUGH NORTHERN ARIZONA... A SPOKESWOMAN FOR THE COMPANY THAT TRANSPORTS THE MATERIAL FROM OHIO TO NEVADA SAYS A FORKLIFT WILL REMOVE THE SEVEN CONTAINERS FROM THE BACK OF THE TRAILER PARKED EAST OF KINGMAN... KATHY GRAHAM SAYS AT LEAST ONE OF THOSE CONTAINERS HAS LEAKED BUT OFFICIALS SAY THERE'S NO CONTAMINATION OR SAFETY THREAT... GRAHAM SAYS THE CONTAINERS WILL BE INSPECTED AND LOADED ON A NEW TRAILER FOR TRANSPORT BACK TO OHIO... ANY LEAKING CONTAINERS WILL BE OVERPACKED... THEY HOPE TO HAVE THE CARGO MOVING EAST TODAY FOR STUDY IN OHIO... SIX CONTAINERS SHIPPED FROM OHIO SINCE DECEMBER FIFTH ARE KNOWN TO HAVE CRACKED... THE DEPARTMENT OF ENERGY YESTERDAY IMPOSED A TEMPORARY HALT UNTIL THE SHIPMENT PROBLEMS ARE INVESTIGATED AND CORRECTED...

THE DEPARTMENT OF ENERGY HAS HALTED ALL WASTE SHIPMENTS FROM THE DISMANTLED NUCLEAR POWER PLANT IN FERNALD OHIO...THAT'S BECAUSE CRACKS HAVE BEEN FOUND IN SIX OF 87 CONTAINERS SHIPPED FROM THE FACILITY SINCE DECEMBER FIFTH...TWO OF THE CRACKED CONTAINERS ARE ON A TRUCK PARKED EAST OF KINGMAN...A SPOKESWOMAN FOR THE HUALING COMPANY SAYS NONE OF THE CRACKED LOW LEVEL RADIOACTIVE WASTE CONTAINERS POSES A SAFETY THREAT...

CART: ARIZONA TRUCK RIGHT

KATHY GRAHAM SAYS HER FIRM HAS HIRED A SPECIAL EMERGENCY RESPONSE TEAM FROM SOUTHERN CALIFORNIA TO HANDLE THE TRUCK OUTSIDE KINGMAN...SHE SAYS THAT CREW WILL DEVELOP A PLAN TO GET THE TRUCK AND ITS CONTENTS BACK TO OHIO WHERE THE HAULING COMPANY CAN STUDY THE SHIPMENT PROBLEMS...

CART: HERE AT FERNALD

THE GOVERNOR OF NEVADA AND OTHER SILVER STATE OFFICIALS ARE POINTING TO THE CRACKED CONTAINERS AS EVIDENCE OF THEIR CONCERN...THEY'VE BEEN FIGHTING TO PREVENT PLANNED SHIPMENT OF HIGH LEVEL RADIOACTIVE WASTE TO YUCCA MOUNTAIN IN THE FUTURE...

A SPECIAL EMERGENCY RESPONSE TEAM FROM SOUTHERN CALIFORNIA HAS BEEN HIRED TO HANDLE AN INCIDENT INVOLVING LOW LEVEL RADIOACTIVE WASTE ABOUT TWENTY MILES EAST OF KINGMAN...A SMALL CRACK HAS BEEN DISCOVERED IN TWO CONTAINERS IN A TRUCK HAULING THE MATERIAL FROM THE DECOMMISSIONED FERNALD NUCLEAR POWER PLANT FOR DEPOSIT AT THE NEVADA TEST SITE... A SPOKESWOMAN SAYS OTHER CONTAINER CRACKS HAVE ALSO BEEN DISCOVERED SINCE DECEMBER FIFTH...

CART; GRAHAM ;11 Q: AND ABSORBENT

SPOKESWOMAN KATHY GRAHAM SAYS EXPERTS HAVE CONCLUDED THE INCIDENTS POSE NO CONTAMINATION OR SAFETY THREAT...GRAHAM SAYS THE SERIES OF MISHAPS IS UNDER INVESTIGATION...

CART; GRAHAM ;08 Q: WELD JOINT

THE DEPARTMENT OF ENERGY TODAY ORDERED A TEMPORARY HALT IN THE SHIPMENTS WHILE THE PROBLEMS ARE INVESTIGATED...THE SPECIAL RESPONSE TEAM ASSEMBLING OUTSIDE KINGMAN WILL DEVELOP A PLAN FOR GETTING THE TRUCK IN QUESTION AND ITS CARGO BACK TO OHIO TO FACILITATE THE PROBE...

1180

DAVE HAWKINS KGMN

A CRACKED CONTAINER HAULING LOW LEVEL RADIOACTIVE WASTE THROUGH NORTHERN ARIZONA IS BEING PATCHED THIS AFTERNOON...A SPOKESWOMAN FOR THE COMPANY HAULING THE WASTE FROM THE DECOMMISSIONED FERNALD NUCLEAR POWER PLANT IN OHIO SAYS THE CONTAINER IN THE REAR OF THE TRUCK TRAILER HAS A CRACK TWO INCHES LONG AND ABOUT AN EIGHTH OF AN INCH DEEP... TRICIA THOMPSON SAYS ONLY HARMLESS WATER HAS SEEPED THROUGH THE CRACK, THOUGH THE CONTAINER HOLDS A THICK SLUDGY MATERIAL CALLED "SUMP CAKE", A PRODUCT OF THE FILTRATION PROCESS AT THE OHIO FACILITY...SHE SAYS NONE OF THAT MATERIAL HAS BREACHED THE CONTAINER...THOMPSON SAYS THE TRAILER WILL REMAIN IN PLACE OVERNIGHT EAST OF KINGMAN UNTIL A CREW INSPECTS THE REPAIR TOMORROW TO SEE IF THE LOAD IS SAFE TO TRANSPORT FOR DEPOSIT AT THE NEVADA TEST SITE IN THE TOWN OF MERCURY...

61

DAVE HAWKINS KGMN

THE FERNALD MANAGEMENT PROJECT IN OHIO PLANS TO HIRE A SPECIAL EMERGENCY RESPONSE TEAM TO HANDLE AN INCIDENT ABOUT TWENTY MILES EAST OF KINGMAN... SPOKESWOMAN KATHY GRAHAM SAYS THE TEAM WOULD TAKE CHARGE OF THE TRUCK IN WHICH TWO CONTAINERS HAVE LEAKED NON CONTAMINATED MATERIAL...GRAHAM SAYS THE TRUCK AND ITS LOW LEVEL RADIOACTIVE CONTENTS WILL BE RETURNED TO OHIO FOR STUDY RATHER THAN SENDING THE LOAD ON TO NEVADA FOR DEPOSIT AT A DUMP SITE...GRAHAM SAYS THE COMPANY WANTS TO FIND OUT HOW TO PREVENT ADDITIONAL INCIDENTS...SHE SAYS FIVE OF 87 BOXES SHIPPED FROM OHIO SINCE DECEMBER FIFTH HAVE DEVELOPED SMALL CRACKS ON THE BOTTOM...THREE OF THE LEAKS WERE DISCOVERED DURING DUMPING AT THE NEVADA TEST SITE AND THE OTHER TWO CRACKED CONTAINERS ARE ON THE TRUCK EAST OF KINGMAN...

Attention Brooks
Story this page - dated - 3 hours old
fresher copy on next page

MORE PROBLEMS FOR THAT TRUCK LOAD OF LOW LEVEL RADIOACTIVE WASTE PARKED ABOUT TWENTY MILES EAST OF KINGMAN...FERNALD ENVIRONMENTAL MANAGEMENT PROJECT SPOKESWOMAN KATHY GRAHAM SAYS ANOTHER LEAK HAS BEEN DETECTED IN THE TRUCK HOLDING SEVEN LARGE METAL BOX CONTAINERS...A LEAK DISCOVERED IN THE CONTAINER AT THE REAR OF THE TRUCK WAS PATCHED YESTERDAY AND OFFICIALS PLANNED TO LET THE SHIPMENT PROCEED ON TO THE NEVADA TEST SITE FOR DISPOSAL TODAY...HOWEVER, DISCOVERY OF THE NEW LEAK HAS TRIGGERED NEED FOR DEVELOPING A NEW PLAN OF ACTION...GRAHAM SAYS AUTHORITIES BELIEVE ONLY HARMLESS WATER HAS SEEPED THROUGH CRACKS IN THE CONTAINERS...THEY DON'T YET FEAR THAT THE CONTAMINATED THICK SLUDGY MATTER CALLED "SUMP CAKE" HAS BREACHED THE BOXES. ~~(CIV) WATER LEAKAGE~~ FURTHERMORE, GRAHAM CONFIRMS REPORTS THAT SIMILAR LEAK PROBLEMS HAVE BEEN DETECTED WITH OTHER SHIPMENTS THIS WEEK FROM THE DECOMMISSIONED NUCLEAR POWER FACILITY AT FERNALD, OHIO...AT THIS TIME SHE'S UNABLE TO SAY WHERE AND HOW MANY OTHER INCIDENTS HAVE OCCURRED...

111.89

MORE DETAILS TODAY ABOUT A RADIATION SCARE NEAR THE PETRO TRUCK STOP EAST OF KINGMAN...AUTHORITIES SAY THERE'S NO PRESENT CONTAMINATION OR SAFETY THREAT...A TRUCK HAULING LOW LEVEL NUCLEAR MATERIAL FROM OHIO FOR DEPOSIT IN NEVADA REMAINS PARKED WHERE OFFICIALS YESTERDAY PATCHED A CRACK IN THE BOTTOM OF ONE OF THE CONTAINERS IN THE BACK OF THE TRAILER...A SPOKESWOMAN FOR THE WASTE HAULING COMPANY SAYS THE WHITE METAL BOX CONTAINS A THICKENED LIQUID...

CART: THOMPSON ;15 Q; SYSTEMS HERE

TRICIA THOMPSON SAYS THE MATERIAL IS LEFT OVER FROM THE NOW DECOMMISSIONED NUCLEAR POWER PLANT IN FERNALD OHIO...SHE SAYS NONE OF THE MATERIAL SEEPED THROUGH THE CONTAINER CRACK THAT WAS PATCHED YESTERDAY...OFFICIALS WILL INSPECT THE REPAIRWORK THIS MORNING TO DETERMINE IF IT SAFE TO SEND THE CARGO ON THROUGH KINGMAN ENROUTE TO THE NEVADA TEST SITE...

64

2 HAWKINS KGMM

THE FERNALD MANAGEMENT PROJECT IN OHIO PLANS TO HIRE A SPECIAL EMERGENCY RESPONSE TEAM TO HANDLE AN INCIDENT ABOUT TWENTY MILES EAST OF KINGMAN... SPOKESWOMAN KATHY GRAHAM SAYS THE TEAM WOULD TAKE CHARGE OF THE TRUCK IN WHICH TWO CONTAINERS HAVE LEAKED NON CONTAMINATED MATERIAL...GRAHAM SAYS THE TRUCK AND ITS LOW LEVEL RADIOACTIVE CONTENTS WILL BE RETURNED TO OHIO FOR STUDY RATHER THAN SENDING THE LOAD ON TO NEVADA FOR DEPOSIT AT A DUMP SITE...GRAHAM SAYS THE COMPANY WANTS TO FIND OUT HOW TO PREVENT ADDITIONAL INCIDENTS...SHE SAYS FIVE OF 87 BOXES SHIPPED FROM OHIO SINCE DECEMBER FIFTH HAVE DEVELOPED SMALL CRACKS ON THE BOTTOM...THREE OF THE LEAKS WERE DISCOVERED DURING DUMPING AT THE NEVADA TEST SITE AND THE OTHER TWO CRACKED CONTAINERS ARE ON THE TRUCK EAST OF KINGMAN...

November 12, 1997

Harrison Press

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"Fluor Daniel awards cleanup subcontract to Pittsburg company"

Fluor Daniel awards cleanup subcontract to Pittsburg company

Fluor Daniel Fernald has awarded a \$122 million, eight-year subcontract to International technology (IT) Corporation of Pittsburgh, Pa., to plan and implement on-site remediation activities for six waste pits, a clear well and a burn pit at the U.S. Department of Energy's (DOE) Fernald Environmental Management Project (FEMP).

"After excavating the waste pits and surrounding contaminated soils, IT will then process the waste materials to meet strict waste acceptance standards, and load the materials into rail cars for off-site shipment," said Dave Lojek, DOE-FEMP project manager.

Following an extensive competitive proposal process, Fluor Daniel Fernald awarded the subcontract to IT.

In addition to evaluating the total project cost, Fluor Daniel Fernald evaluated several technical factors including: overall understanding of the project and operational scheme; health and safety program and performance records; experience of proposed key personnel; and experience in employing thermal treatment technology.

IT began planning and design activities in October. Construction is scheduled to begin in July 1998.

The project is scheduled to be com-

pleted by May 2005, including decontamination and dismantling of the waste pit remediation facilities.

Operable Unit 1 waste pits cover approximately 37 acres of the 1,050-acre Fernald site and range in depth from 13 to 30 feet. More than 1 million tons of contaminated materials are associated with the cleanup of the waste pits.

Health department seeks input from Crosby residents

My compliments to all area candidates for the rapid removal of their campaign signs. The morning following the election there was no evidence of a race. Crosby Township always seems to set the example. Great job!

Crosby Township residents that perhaps have an unresolved health department issue or a health department concern, assistance is available through the Hamilton County Health Department. Contact Ken Dunn, Hamilton County Health Department at 325-4500. The department is focused on Crosby Township now, so let your concerns be known. The trustees want to thank Mr. Dunn and Mr. Ingram (director) for their willingness to reach out to us.

The following is a brief summary of some of the activities of the trustee in between the regular meeting dates during the month of October:

Oct. 2 - Trustee Strunk attended the Western Joint Ambulance District monthly meeting. At this meeting, Dr. Tim Drury was announced as the new medical director and Mr. Alan Kinnert was appointed as the new administrative chief.

Oct. 7 - Trustee Gary Storer interviewed Mr. Charles Young, Ross EMS, concerning billing non-residents.

Oct. 7 - Trustee Storer attended the Community Reuse Organization (CRO). The primary objective of this meeting was to initiate the working committee include: communications, public involvement, land re-use, equipment and materials, economic development and worker transition.

Oct. 9 - Trustee Storer inspected a tributary blockage between 7749 and 7763 Willey Road as requested by the resident. The Hamilton County Engineers were asked to inspect and clear. Being out of their right-of-way, the Hamilton County Engineers determined this obstruction to be the private owners responsibility.

Oct. 14 - Trustee Storer attended a public tour of the Fernald Clean-up projects. DOE and Fluor Daniel Fernald project managers described on-going activities and answered questions while the attendees viewed the particular project from the bus. This was a great opportunity.

Oct. 16 - Trustees Jane Harper and Storer attended the Crosby Township Historical Society monthly meeting. The program featured David French, president of the Tri-State Marble Collectors Club. He appraised, and identified many marbles brought by those in attendance. Marbles featured were agates, sulfides,

Crosby Corner

By Gary Storer

maglite indian, and oxblood. Marbles ranged in size from 2-1/2 inches to 7/8 inches in diameter.

Oct. 10 - Trustee Storer attended the Administrative and Evaluation Com-
Continued on Page 5B

Crosby Twp

Continued from Page 4B

mittee of the Fernald Community Reuse Organization (CRO).

Oct. 27 - Trustee Storer attended the open house at the DOE Public Environmental Center/Technical Information Center at the Delta Building.

Oct. 20 - The Board of Trustees met with Medicount to discuss the mechanics of billing non-residents for EMS services. Billings planned to begin Jan. 1, 1998.

Fluor Daniel Fernald announces construction of the compacted Clay Liner by Petro Environmental Technologies, Inc. is in process approximately 60,00 cubic of clay has been placed.

The newly paved north access road is open and the security department has advised all personnel and visitors to proceed with caution due to ongoing construction activities in that area in support of the on-site disposal facility.

The Hamilton County Environmental Services Department has sent Crosby Township \$452.43 for its second quarter incentive award. As always thank you for your participation in the district's residential recycling incentive program.

The Crosby Township Trustee meetings during the month of November will be on the 10th and the 24th. See you there. Other events and important dates include: Election Day (4), Veterans Day (11), Festival of Lights at Cincinnati Zoo (Nov. 22-Jan. 4), Thanksgiving Day Nov. 27.

Crosby Corner is written by Gary

Storer in an effort to improve communication between the trustees and the citizens of Crosby Township.

Don't over fill your gas tank, when a self-service pump's automatic shutoff mechanics first clicks off. Stop filling. Overfilling saturates the evaporative emissions canister-a device that is intended to trap gas fumes from the tank before they pollute the atmosphere. It can cost \$100 to replace.

Winners in the stock market make money on only two out of five investments.

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"Crosby Corner"