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FCAB UPDATE

Week of July 7, 2003

(Last update was June 2, 2003)

MEETING SCHEDULE

Stewardship Committee Meeting
Wednesday, August 13, 2003 6:30 p.m.

Trailer T-214 On Site

FCAB Meeting
Thursday, August 14, 2003 6:30 p.m.

Crosby Senior Center

ATTACHMENTS

- 6/12/03 Draft FCAB Meeting minutes
- 6/11/03 Stewardship Committee Meeting Summary
- 8/14/03 FCAB Meeting Draft Agenda
- 8/13/03 Stewardship Committee Meeting Draft Agenda
- Draft Response to 4/21/03 Records Management Letter from Jessie Roberson
- Draft Letter to Follow-up on Natural Resource Damages Roundtable
- CAT Report #36, June 24, 2003 and Summary
- Articles & News Clippings

FOR FURTHER INFORMATION

Please contact Doug Sarno or David Bidwell at The Perspectives Group
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www.fernaldcab.org

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FULL BOARD MEETING

Crosby Township Senior Center

Thursday, June 12, 2003

DRAFT MINUTES

The Fernald Citizens Advisory board met from 6:30 p.m. to 9:00 p.m. on Thursday, June 12, 2003, at the Crosby Township Senior Center.

Members Present:

Jim Bierer
 Sandy Butterfield
 Marvin Clawson
 Lisa Crawford
 Steve DePoe
 Pam Dunn
 Glenn Griffiths
 Jane Harper
 Graham Mitchell
 Robert Tabor
 Tom Wagner
 Gene Willeke

Members Absent:

French Bell
 Lisa Blair
 Kathryn Brown
 Blain Burton
 Lou Doll
 Gene Jablonowski

Designated Federal Official:

Gary Stegner

The Perspectives Group Staff:

Douglas Sarno
 David Bidwell

Fluor Fernald Staff:

Sue Walpole

Approximately ten spectators also attended the meeting, including members of the public and representatives from the Department of Energy and Fluor Fernald.

General Announcements and Ex-Officio Comments

Jim Bierer called the meeting to order. The Board approved the minutes from its May meeting.

Jim and Glenn Griffiths both thanked members of the site staff who had helped to organize the public tour held earlier in the week. Jim suggested that another tour be held when the site reaches closure. Jeff Wagner reported that an estimated 550 individuals attended the tour. Sue Walpole read a letter from Tony Calabrese who served as the Attorney General for the State of Ohio during the time of the Fernald citizens' lawsuit against DOE. Mr. Calabrese wrote that he regretted being unable to attend the public tour and thanked the citizens for their hard work in pursuit of the cleanup.

Doug Sarno explained that at the last SSAB Chairs meeting, DOE Headquarters requested that all SSABs develop "success stories" that highlight the benefits of the Boards. Tom Wagner stated that Headquarters was looking for anecdotes that would support the work of the SSABs. Doug reviewed three draft success stories for the FCAB, which focused on the Future of Fernald process, recommendations for a balanced approach to cleanup, and the original recommendation for an accelerated cleanup of Fernald. FCAB members suggested other topics that could be used to write a success stories for Fernald, including the use of rail transportation, use of cleanup dollars to address special nuclear materials, and the open relationships that have developed among Fernald stakeholders.

Site Update

Dennis Carr provided the FCAB with an update on site administrative issues and progress of cleanup projects. He announced that safety performance has improved recently, even as activities at the site have increased. He also announced that overall work at the site is ahead of schedule and within baseline costs.

Dennis also discussed workforce issues. A reduction of 60 salaried and 100 hourly workers is anticipated on July 7. He stated that 20 staff members had already opted to participate in the voluntary separation program. He also stated that a new contract had been signed with Atomic Trades, and negotiations with the guards union were just beginning.

Heavy spring rains delayed some progress at the on-site disposal facility (OSDF), but the clay cover has been placed on Cell 2 and the clay liner is almost complete for Cell 6. Dennis stated that the project should be able to get back on schedule when weather clears over the summer. In response to a question from an FCAB member, Dennis explained that the additional scope of the recently renegotiated closure contract would require construction of an eighth cell at the OSDF. He added that trailers from the production waste pits would eventually be placed in the OSDF, because it would be difficult and expensive to certify them as contaminant-free. All other trailers on the site will be shipped offsite for salvage.

Dennis stated that all remaining production facilities should be demolished, and the water tower should come down by early October 2003.

Dennis announced that performance at the Advanced Waste Water Treatment (AWWT) facility has improved, because the Waste Pits project has been pre-treating water before it is pumped to AWWT. The site has met its discharge limits for uranium, but it is spending a lot of time replacing resins in the ion-exchange system. He also announced

that a fitting had come loose recently on an off-site extraction well, resulting in a release of 100 gallons of water. The levels of uranium in this water was 44 parts per billion, which exceeds levels for drinking water, but soil tests showed no increase above baseline levels.

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The Waste Management Project has nearly completed the blending of legacy waste with waste pits material. All together, there are fewer than 6,000 drums remaining in the Fernald inventory. Dennis also announced that the last restricted "red drum" had been repackaged for shipping. He stated that all repackaging should be completed in the next two weeks, and all remaining inventory should be shipped offsite by September 30, 2003.

Waste Pits Remedial Action Project Update

Dave Lojack reviewed a handout showing that 65-75% of the waste pits program is complete. He stated that although the schedule is aggressive, the project should be completed by the Fall of 2004. Mark Cherry and Con Murphy provided the FCAB with a detailed update of progress at the waste pits.

Mark provided an overview of the Waste Pits Remedial Action Project, which started processing materials in 1999. He stated that over the past four years, the project has matured and become more efficient. He reported that there are currently 220 people on the project, working 35,000 total hours each month, but the project has achieved a 0.88 rate of OSHA reportable incidents this year. Mark stated that the biggest challenge for the project is to stay vigilant on safety, because the workers are doing the same work every day. He noted that the excavation crew has not had a reportable injury in the past four years. In total, the project has loaded more than 5,000 railcars with more than 500,000 tons of material. Last year, 145,000 tons were processed, and this year the project has a goal of 180,000 tons. Production has been increased by shifting the dryers to a 24-hour, seven-days-a-week schedule and by adding more rail infrastructure. Mark noted that all the remaining material to be excavated would not have to go through the dryers, because it is close enough to the optimum moisture content for disposal at Envirocare. He also explained that during the summer, the site is allowed to ship slightly wetter materials, because some moisture is lost during transport and placement. Mark responded to a question about air monitoring by explaining that data from 65 monitors are examined every two weeks. After experiencing some problems in 2000, the project focused on reducing airborne contaminants and has achieved levels of less than one microgram of exposure at the site fence line.

Con reviewed the progress that has been achieved in each of the waste pits and displayed photographs of each pit. Pit 3 is more than 80 percent complete. Pit 1 is approximately 96 percent complete, and has been used to blend containerized waste this spring. Excavation of Pit 2 is approximately 56 percent complete. Work on Pit 4 was begun in the Fall of 2002, with removal of the cap. Excavation has already reached the bottom of one corner of Pit 4 and should be completed this year. The dryers have focused on relatively wet materials in Pit 5 over the past year, and it is now 33 percent complete. Con explained that the clay liners from beneath the pits would be characterized to determine if they meet the waste acceptance criteria for the OSDF. If they meet the levels, a ROD amendment would be completed over the next few months to allow their on-site disposal.

Con noted that the project now schedules routine downtime for the maintenance of the dryers. When the dryers were operated on a five-day schedule, maintenance could be conducted on weekends. Under a seven-day schedule, time must be set aside to

conduct preventative maintenance. He explained that the dryers were not operating over the past two weeks. Bob Tabor, who works at the Waste Pits project, reported that there was a lot of work to do, but it had gone smoothly.

FCAB members asked if there had been any additional incidents concerning lids being ajar on train cars returning from Envirocare. Mark and Con reported that staff members from Fernald had gone to Utah in order to elevate awareness of quality assurance among Envirocare workers, and there were no additional incidents over the past month. Dave reported that Union Pacific had shared information with the citizen who complained about the open lid in May.

Silos Project Update

Dennis stated that Fluor Fernald is still working with a Congressional staffer to add language to the Water and Energy Appropriations bill, which would designate the silos materials as 11e.(2) waste. This designation would allow the site to dispose of silos waste at Envirocare, rather than the Nevada Test Site. NRC and DOE have reviewed the draft language and indicated their support. The Congressional authorizing committee, which would need to approve the language, has also indicated that it supports this approach. The Army Corps of Engineers, however, has not yet provided feedback. Dennis expects the language to be approved by the end of June. He also noted that he, Terry Hagen, and possibly Gene Jablonowski plan to meet about this issue with the State of Utah on July 1, 2003. The designation of the waste would not be official until the FY2004 federal budget is approved.

Ray Corradi provided the Board with an update on recent progress at the Silos projects. He stressed that the project is moving forward, under the assumption that the Nevada Test Site could be the only disposal option for silos materials. This means the materials would have to be transported by truck. All facilities are being constructed to allow the use of trucks and railcars.

The Radon Control System for Silos 1 and 2 began continuous operation in May. This second "hot test" has demonstrated better performance than expected, so the project team does not anticipate a need for additional carbon beds. Ray noted that the bridge that will be placed over Silo 1 has been constructed on the ground and will be lifted into place by a crane in July. In anticipation of this construction, the "beanies" were removed from the domes of Silos 1 and 2. The beanies were cut into pieces at the waste pits and shipped off site for disposal. Silo 4 will be used to mockup the openings that will be used to remove waste from Silos 1 and 2. The sluicing operation should begin in the Winter or Spring of 2004. Ray stated that approximately a dozen shipping containers have been built and are currently undergoing DOT testing. Components of the machinery that will be used to move, fill, and cap these containers are being tested and constructed by vendors. A mockup of the full system will be tested in Oak Ridge in August of 2003. Ray also noted that DOE is reviewing the ESD for Silos 1 and 2.

Ray reported that the design is complete for the waste conditioning system for Silo 3. He also explained that DOT is testing the bags that will be used to transport this waste. The project team is preparing a response to the three comments received on the proposed Silo 3 ROD Amendment.

Gene Willeke asked whether the excavator, used to open a hole in the site of Silo 3, could also be used to break apart any compacted materials at the bottom of the silo. Gene stated that this would allow as much waste as possible to be removed using the

pneumatic wand. Ray stated that the pneumatic wand could possibly be attached to the end of the excavator to facilitate this.

CAT Report

Gail Bingham and Todd Martin of the Critical Analysis Team (CAT) attended the meeting and provided a briefing to the FCAB. Todd reported that bi-weekly conference calls have improved communications with the Silos Project Team. He noted that a one-month delay in the scheduled test of the full Silos 1 and 2 packaging system had allowed individual components to be tested and improved by the vendors. Todd reported that the CAT believes the Silos 1 and 2 treatment facility can and will work, although the CAT will continue to review some airflow issues. He also explained that the CAT believes that cost-of-schedule reporting could be used more effectively as a management tool for the project.

NRD Roundtable Follow-Up

Doug reviewed the Natural Resources Trustees joint status report, which must be submitted quarterly to the judge overseeing the Natural Resource Damages (NRD) claim. The report was very perfunctory and stated that settlement is expected "soon." Doug stated that this was not the impression given at the May 8, 2003 roundtable discussion. Johnny Reising stated that settlement language was drafted in the past, but negotiations are at a standstill until DOE Headquarters provides some guidance on the issue. FCAB members asked if that draft settlement is available for public review. Graham Mitchell stated that it is unlikely that the Trustees' lawyers would release any draft settlement language. He added that the FCAB should tell the Trustees what it wants to see included in a settlement.

Doug reported that the Stewardship Committee agreed at its last meeting that the FCAB should draft a letter to the Trustees that outlines the three major unresolved issues identified at the roundtable. The letter would not make specific recommendations for what should be included in the settlement, but would outline principles that must be addressed in a settlement. The Stewardship Committee also recommended that the letter be copied to the judge for the NRD claim. The Board agreed that a letter should be drafted, for discussion and approval at its next meeting.

The Board briefly discussed the need for a long-term steward for natural resources at the site. Graham stated that any potential steward would want to know that funding is in place to support ongoing stewardship activities. He also stated that relationships with potential stewards must be developed over the next few years, so they can see progress in the restoration of the site. The Board members discussed the pros and cons of the state, Hamilton County, a university, or a nonprofit organization acting as a steward. They also discussed the possibility of a new organization being founded to play the role of natural resource steward at Fernald. The Board agreed that several potential stewards should be pursued simultaneously. Doug suggested that a future Board meeting could be devoted to this topic.

FCAB Anniversary Celebration

Doug announced that a celebration of the FCAB's 10th anniversary would be held on the evening of Friday, September 12. The event will be held at the Fitton Center in downtown Hamilton. Fluor has offered to host the party, assisted by The Perspectives Group. Doug distributed a preliminary list of invitees and asked the FCAB members to suggest any other individuals that were integral to the work of the FCAB.



MEETING SUMMARY

Date: June 11, 2003

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Topics:

- Rock Flats Cold War Museum
- Status of Records Management
- Follow-Up to NRD Roundtable

Attendees:

Fernald Citizens Advisory Board

Sandy Butterfield
Marvin Clawson
Lisa Crawford
Pam Dunn
Bob Tabor

FRESH

Edwa Yocum

The Perspectives Group

Doug Sarno
David Bidwell

U.S. Department of Energy

Ed Skintik
Gary Stegner
Anne Wickham

Ohio Environmental Protection Agency

Donna Bohannon
Tom Schneider

Fluor Fernald

Luther Brown
Joe Shomaker
Ric Strobl
Sue Walpole
Eric Woods

Other

Jason Krupar

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General Updates

Doug Sarno called the meeting to order and reviewed the agenda. Joe Shomaker announced that two groups have expressed an interest in repatriating the Seneca and Shawnee remains at the site. He also stated that Barbara Krandall has asked that the current Native American burial site at Fernald be marked with a boulder. Joe stated that although there are boulders at the site that would be appropriate, a means to move them has not been identified. Joe also showed the committee members a booklet on the area's Native American history, which will be mailed to key stakeholders and employees.

Eric Woods stated that work has begun on an institutional controls plan for Fernald. He anticipated that a first draft would be submitted to U.S. EPA in the Autumn of 2003. Committee members asked that the community have an opportunity to review and comment on preliminary drafts.

Rocky Flats Cold War Museum

Jason Krupar spoke to the group regarding efforts to develop a Cold War Museum at the Rocky Flats site in Colorado. Jason recently joined the faculty at the University of Cincinnati, but was a founding member of the Rocky Flats Cold War History Museum. Jason explained that in 1998 a variety of stakeholders, including retired employees, site personnel, activists, and local governments, formed an informal group focused on the site's history. In 2001, the primary contractor for the cleanup of the Rocky Flats site, Kaiser Hill, offered the group \$150,000 over two-years to lay groundwork for a museum. The group incorporated as a nonprofit organization, hired a part-time director, and contracted with a Washington, DC firm to study the feasibility of a museum. Jason also noted that the 2002 authorization bill for the Rocky Flats National Wildlife Refuge included a provision that a museum could be established at the site. Before Jason left Colorado, there were indications that the existing visitor's center for the site and its contents might eventually be turned over to the museum organization. Jason's advice to the Fernald community was to get Congressional representatives involved early in its effort to develop a multi-use education facility. He also stressed the importance of obtaining and properly preserving artifacts and photographs from the site. Jason stated that he would provide the Stewardship Committee with contact information for the director of the Rocky Flats Cold War Museum.

Status of Records Management

Luther Brown spoke to the committee regarding the status of records management at Fernald and within DOE. Luther stated that the recently renegotiated closure contract removed Fluor Fernald's responsibilities to disposition pre-1992 site contractor records. These records, produced by National Lead and Westinghouse, total around 25,000 boxes. He stated that Fluor has worked well with DOE-Fernald on records management issues in the past, but that details have not yet been worked out as to how this separation of responsibilities will be handled. He noted that disposition of records is not included in the FY04 baseline, but something must be done soon to reduce the volume of records or the records storage facility will run out of space. Luther noted that many records are still active and in the field, and that the total number of records expected to be produced by the end of 2006 is close to 50,000 boxes. Gary Stegner stated that there are approximately 2,000 boxes of DOE records at the site, and that those records have also been organized well.

Luther explained that once work is completed at the site, the Office of Legacy Management would be responsible for the management of site records. However, DOE is currently debating how records will be prepared before they are transferred from Environmental Management to Legacy Management. Until DOE Headquarters determines who will pay for preparing closure site records for

this transfer and who will manage the work, progress in preparing the records at Fernald is likely to be slow.

Luther noted that DOE Headquarters did conduct a meeting focused on records management in April of 2003, which was attended by approximately 50 people. Representatives from all of the DOE closure sites stressed the need for clear guidance and additional resources directed towards record management. Otherwise, Luther reported, Legacy Management will inherit a significant problem in 2006. One possible solution discussed at this meeting was the use of an interim storage facility for closure site records, because transaction fees are charged by Federal Records Centers each time information is accessed. Luther stated that this meeting also provided another opportunity to build a positive relationship with the Grand Junction Office, which has been named as the long-term steward for Fernald. Five teams were established to address records management issues. Luther stated that a conference call was planned for June 13 in order to continue discussion of these issues.

Doug stressed that the Stewardship Committee should stay up-to-date on these issues, but reminded the group that records management is only part of ensuring that information is available to the public after closure. Luther reiterated his commitment to work with the community before any records are destroyed. The group briefly discussed issues related to organizing and cataloguing photographs and videos, which has been a major concern of the Fernald community. Luther stated that photographic records are managed by Fluor's public affairs staff, but the numbers of this staff have been reduced significantly. Doug stated that records management would likely be a significant focus of the FCAB's annual retreat in September of 2003.

Eric Woods presented the committee with a draft long-term stewardship records matrix, produced at the site using the template developed by the Grand Junction Office. He stated that the site needs to know, specifically, what information the community wants to be retained.

The committee also discussed the DOE Headquarters response to the recommendations in the FCAB report, *Telling the Story of Fernald*. The committee members agreed that a letter should be drafted that would thank DOE for its response but reiterate the community's concerns at a general level. This letter should make it clear that the FCAB will continue to provide input on these issues.

Follow-Up to NRD Roundtable

The committee discussed what action should be taken by the FCAB as follow-up to the May 8, 2003, Natural Resource Damages roundtable discussion. Committee members expressed their disappointment that so many questions were left unanswered at the roundtable. They also noted that the proposed \$5 million damages payment likely would not be adequate to fund all the activities that were being lumped into a potential settlement. Doug suggested that the Board weigh in on what principles should guide settlement of the NRD claim. The Stewardship Committee agreed to recommend that the FCAB send such a letter to the NRD Trustees and the judge overseeing the lawsuit.

The committee concluded the meeting with a brief discussion of agencies and organizations that could serve as the steward of natural resources at the site.

Next Meeting

The next Stewardship Committee meeting will be held on Wednesday, August 13, 2003, at 6:30 p.m. in T-214.



FCAB REGULAR MEETING

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Crosby Township Senior Center, 8910 Willey Road

Thursday, August 14, 2003

DRAFT AGENDA

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|------------------|---|
| 6:30 p.m. | Call to Order |
| 6:30 – 7:00 p.m. | Chair's Remarks, Ex Officio Announcements and Updates |
| 7:00 – 7:30 p.m. | Review and Approve Response to Natural Resource Damages Recommendations |
| 7:30 – 8:00 p.m. | Review and Approve Response to Records Letter from Jessie Roberson |
| 8:00 – 8:45 p.m. | Results of MUEF Strategic Planning |
| 8:45 – 9:00 p.m. | Public Comment |
| 9:00 p.m. | Adjourn |

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**STEWARDSHIP COMMITTEE MEETING
T-214**

Wednesday, August 13, 2003

DRAFT AGENDA

- 6:30 p.m. Opening Remarks and Updates
- 6:40 p.m. Strategic Planning for Implementation of the MUEF
- Recent Activities
 - Who Needs to be Involved?
 - Timeline for Planning
 - Role of the FCAB
- 8:00 p.m. Adjourn

June 24, 2003

Jessie Roberson
Office of Environmental Management
U.S. Department of Energy
[Need real address]

Ms. Roberson:

Thank you for your April 21, 2003, response to the recommendations presented in our report, *Telling the Story of Fernald: Community-Based Stewardship and Public Access to Information*. We appreciate the feedback regarding the management of federal records and the information on current efforts at DOE Headquarters to address the records management needs of closure sites. The Fernald Citizens Advisory Board (FCAB) will continue to work closely with Fernald site personnel on records management issues as the site prepares for its transition to long-term stewardship.

Records management issues recently became more complicated at Fernald, when the management of pre-1992 contractor records was removed from the renegotiated Fluor Fernald closure contract. At this time, it has not been clearly communicated to the public how and when DOE intends to tackle this work. We believe careful coordination between all levels of DOE management and Fluor Fernald will be critical to the successful, careful disposition of all records at Fernald. The FCAB will continue to monitor this situation closely during FY2004.

We recently learned that DOE held a meeting this past April to discuss records management issues at closure sites. A significant focus of that meeting was the transition of records management responsibilities from the Office of Environmental Management to the new Office of Legacy Management. We believe that due to the scope of this issue and its importance to sites facing closure in 2006, DOE must soon provide its sites with guidance on how this transition will occur and with the resources that are needed to successfully complete the work. We also hope that DOE will seek input from its SSABs and other community members regarding this issue, since it will have a profound impact on what information is available regarding these sites after remediation is completed.

Technical records are important, but they alone will not meet the public information needs. Although federal records will continue to play an important role in long-term stewardship, we are less concerned with this aspect of the issue as federal regulations are well in place to direct DOE's actions. However, the real message from our November, 2002, Report, *Telling the Story of Fernald* is that the community desires access to a broad range of information, presented in user-friendly, graphics-rich formats. The protection of human health and the environment at these sites will require a high level of awareness in the community, which is only achievable through ongoing educational outreach. These needs are not being met by current DOE actions, and cannot wait until the end of 2006, when management of the site is transferred to Legacy Management, to be addressed. By

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that point, it may be too late to preserve, describe, and catalogue some of the resources that are most important to the community, such as photographs and historical artifacts.

Through the end of this year and into FY2004, the FCAB will continue to work locally to identify important resources and provide input on the kinds of access that will be most beneficial. We will also continue to press for active and aggressive national leadership on this issue from the Office of Environmental Management.

Sincerely:

Jim Bierer
Chair

June 25, 2003

NRD Trustee Organizations
[Address]

Dear XXX:

On May 8, 2003, the Fernald Citizens Advisory Board hosted a roundtable discussion of the State of Ohio's Natural Resource Damages claim at Fernald and its potential settlement. We appreciate the participation of each of the Natural Resource Trustees in this event and their willingness to discuss the issues with us. We gained a much greater insight into both the process and the status and have identified the major questions that must be resolved before settlement is possible. While we expected to identify such issues, we were quite surprised at the lack of a clear process or timeline for resolving these issues and reaching a settlement of the claim.

As a result of the workshop, the FCAB identified three major unresolved issues which present the greatest obstacles to reaching settlement. First, there is disagreement regarding the amount of time required to ensure that ecological restoration projects are established and how long DOE will be responsible for maintaining ecological conditions at the site. Second, it is unclear what is appropriate for DOE to pay as compensation for groundwater damages or how those dollars should be spent. Third, the Trustees have not determined the degree to which the construction or maintenance of educational and other public facilities (such as an education center, trails, or parking areas) could be supported by the settlement.

Each of these issues would have a profound impact on the Fernald community, because resolution of these issues will partly determine conditions of the site after remediation is completed. The Fernald community has repeatedly communicated its desire that the remediated site continue serve as an integrated community resource and asset. This is an essential component of creating a legacy of community-based stewardship necessary for the long-term understanding and acceptance of the vast quantities of hazardous materials that the Department of Energy is leaving behind in our community. Therefore, the FCAB advocates that the following principles be used to guide the resolution of these issues:

- Public education remains the primary focus of the future of the Fernald site.
- Because cleanup levels at Fernald will require perpetual stewardship and federal ownership, any settlement of the Natural Resource Damages claim should ensure that resources are set aside to provide for the perpetual care for natural features of the site and any attendant public facilities to be constructed.

- The FCAB fully supports the placement of any monetary payments into an interest-bearing trust, which can be used to maintain ecological restoration projects and public facilities over the long term.
- Although DOE bears the ultimate responsibility for ongoing stewardship of natural resources at the site, the FCAB supports the development of partnerships with nonprofit organizations, academic institutions, and local governments in order to conduct necessary maintenance and other beneficial activities.
- The amount of any monetary compensation for damages to groundwater should be based on reasonable cost estimates for long-term support of the programs or activities, including long-term maintenance, that those dollars will be expected to support.

The Fernald Citizens Advisory Board has a long history of constructive input to the Fernald site remediation. Our recommendations on cleanup levels and accelerated cleanup resulted in over \$2 billion of savings by DOE's own estimates. Not having to backfill excavated areas or bring in expensive topsoil is saving tens of thousands more. We are concerned by current attempts to leave the community with a site that serves no useful purpose. We believe such an approach will quickly lead to community backlash against the wastes that have been left behind, which is certainly not in anyone's best interests.

The Fernald Citizens Advisory Board looks forward to a continued relationship with the Natural Resource Trustees and to providing input on any potential settlement of the Natural Resource Damages claim. If you have any questions regarding the issues discussed in this letter or there is any way that the FCAB can be of assistance to you or your organization, please don't hesitate to contact me.

Sincerely:

Jim Bierer
Chair

Cc: Judge Spiegel
Jessie Roberson



REPORT SUMMARY

Report Title: Critical Analysis Team Report #36
 Report Date: June 24, 2003
 Summary Date: June 24, 2003

The 36th report by the CAT is attached. This relates the CAT members' findings and recommendations from their June on-site review of the Silos Projects. Overall, the report is positive about progress at the site. The major concerns raised by the CAT involve project management as the transition is made from construction to operations and the design of the HVAC systems for facilities for both Silos 1 and 2 and Silo 3. The contents of this report are summarized below.

General Comments

The CAT offers a few general comments about the Silos Projects. The CAT is generally positive about ongoing construction of facilities at the silos area. It does add words of caution regarding some project management issues, particularly concerning the transition from design and construction to the startup of operations. Specifically, the report notes that a lack of involvement by operations and maintenance staff in the design of the facilities could result in the need for more corrections during this phase of the project.

Silo 3

The CAT notes that the recent demonstrations of the excavator and vacuum wand that will be used to remove waste from Silo 3 did not adequately replicate actual conditions under which the equipment will be operated. Most of the CAT's comments on Silo 3 reflect concerns about the HVAC system.

Silos 1 and 2

The CAT report is generally positive about activities for Silos 1 and 2. In particular, they note the benefits of having vendors test and fine-tune components of the treatment and packaging system and the project team's choice to increase the size of the discharge pipe for the clarifier. The CAT suggests that continuous, 7-day operation of the container filling operation could eliminate some potential problems. The CAT also notes the successful tests of the Advanced Waste Retrieval project and Radon Control System. The report expresses concerns about the HVAC system design for Silos 1 and 2.

Other

On page, 5 the report presents the upcoming schedule for the CAT and a list of formal recommendations. On page 6, the CAT identifies a long list of assumptions made by the Silos Project, for which it says DOE should consider the risks.

Critical Analysis Team Report #36

24 June 2003

This report documents The Critical Analysis Team (CAT) findings and recommendations resulting from a general Silos Project update and review at Fernald in June 2003. In addition to reviews, the CAT attended the Fernald Citizens Advisory Board meeting.

General Comments

- Construction of the silos project facilities appears to be proceeding quite well. The construction site is clean, organized and appears productive. There appears to be ample access and lay-down areas. Fluor Fernald (FF) deserves credit for coordinating and managing the construction site (particularly given the presence of 8 subcontractors).
- The silos project should take measures to ensure that, when multiple individual project changes are made (e.g. many DCN's; incorporation of multiple changes from testing activities), the systems are reassessed to assure original design criteria are still being met.
- The CAT is encouraged by FF's acknowledgement and initial preparation for AWR, Silo 3 and Silos 1 and 2 turnover and startup activities. However, with the accelerated schedule, the CAT remains concerned with FF's ability to simultaneously turnover, startup and operate three facilities.

To be successful, FF will need to obtain sufficient personnel resources as well as apply lessons learned from the RCS startup. Of critical importance will be preparation of thorough punch lists and completion of corrective actions prior to turnover. The CAT is supportive of FF's recent hiring of several seasoned start-up personnel.

- In the past, the CAT has commented on the lack of adequate operations and maintenance involvement in the design review process. This lack of involvement will likely lead to an increase in facility problems that must be remedied during turnover and startup.

Silo 3

- The excavator demonstration at Silo 4 was important in demonstrating the excavator's ability to cut a hole in the silo. However, the test was not fully demonstrative of the conditions that will exist during the Silo 3 cut. For example, the operator had complete access (seeing, hearing) to the excavator and the silo—he was not cutting the hole remotely. Also, it was not clear

whether the excavator operated within a boundary representative of the actual excavator room. While noting it here, the CAT does not judge the lack of a fully representative test to be a large programmatic risk.

- The Silo 3 project should ensure it has thoroughly considered the number of wands that could operate simultaneously and ensure that the facility's other systems are capable of supporting such operations. In addition, the administrative controls identified to control wand use and operation need to be documented in operating procedures.
- The CAT viewed the video tape of the vacuum wand demonstration. This demonstration, while useful, was not representative of actual operating conditions. For example, the operator was not in PPE or a fresh air mask, was able to see into the retrieval vessel, was operating with a short wand, was not on a representative work platform, and was not using a representative surrogate.

Waiting until Systems Operability Testing before this system undergoes additional truly representative testing raises the programmatic risk Silo 3 faces. The CAT recommends that additional testing, more representative of the actual project conditions, be undertaken to ensure this important system is robust. The Silos 1 and 2 project has identified, and corrected, multiple potential, unforeseen problems through mock-up testing. Given this experience, the need for representative testing for Silo 3 is even more urgent.

The CAT reviewed the HVAC drawings for Silo 3 and offers the following comments:

- The CAT is concerned with the HVAC air flow cascade design for the Silo 3 facility. It appears that the flows do not clearly follow the philosophy of air flowing from clean areas to potentially contaminated areas. Examples include flow from the packaging room into a doffing area, and from the packaging room into the excavator service room. The CAT recognizes Silo 3's intent to avoid contamination in the packaging area. However, such contamination is likely. The CAT recommends Silo 3 reanalyze its flow directions. Ideally, ventilation air would always flow from clean areas to potentially contaminated areas.
- The CAT is concerned that the current design does not include back-up power for the HVAC exhaust fans. Generally, radiological facilities are designed to maintain negative pressure. In this case, the stack will provide minimal negative gradient, but will probably not be sufficient to maintain a negative pressure in the facility. In addition, the Silo 3 approach is contrary to the other silos projects. The CAT recommends the Silo 3 project consider adding back-up power to its HVAC exhaust fans.

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- The pneumatic HEPA filter is upstream of parallel pneumatic discharge blowers. Due to the high potential for frequent filter maintenance and change-out activities, the Silo 3 project should consider adding a second, parallel HEPA filter on the exit air stream. This will prevent having to cease pneumatic operation during filter maintenance and testing.

In addition, if the pneumatic system is shutdown with the HVAC system remaining operational, the possibility exists that the facility will be more negative than the pneumatic system. This could result in air flowing from the pneumatic system into the facility, thus violating a basic ALARA principle.

Silo 1 and 2

- The Silos 1 and 2 project has identified and corrected several problems as a result of its preliminary testing at vendor facilities. Problems with the gantry manipulator signal cabling, the container car clutch, the lid end effector, the vision system, and the fill head boot have all been identified and corrected through testing, redesign and subsequent testing.

The Silos 1 and 2 project deserves credit for these successes, as well as a “teaming” procurement approach that has assisted in ensuring vendors provide quality equipment, as well as ingenuity and creativity in technical support to assist FF in procuring functioning equipment.

- The cold loop tests also seem to be yielding useful results. The tests have impacted Silos 1 and 2 project decisions on valve size, valve type, pump type and meter types. Also a positive, the test loop has been operated at solids contents sufficient to plug piping—thereby providing bounding conditions for the project.

The equipment and instrumentation the project ultimately selects should be installed in the cold loop and then operated as a system to ensure all of the equipment and instrumentation is compatible.

- The CAT has commented in the past on the potential for plugging the clarifier discharge line. The CAT is pleased that the Silos 1 and 2 project is reconsidering the pipe size and pump type for the clarifier underflow to remedy this potential problem.
- The Silos 1 and 2 Time and Motion study is improved over the previous version the CAT reviewed (during preliminary design). In general, the activity durations seem reasonable. However, some may be optimistic given the time required for human-factors type activities (e.g., climbing on and off trucks, breaks, etc.).

- The CAT recommends Silos 1 and 2 re-analyze the potential for continuous (three lines, 24 hours per day) container filling operation. Batch stabilization operations such as this are generally most efficient when run continuously, and only shutdown when maintenance needs arise, rather than in anticipation of maintenance. Continuous operation will also assure a 30-container per day throughput.
- The CAT recommends Silos 1 and 2 assess the practicality of the normal/bypass HVAC modes that are planned when the railcar loading room doors are opened. The CAT is concerned that reversing the flow from normal to bypass will be difficult. Further, when combined with nearly one dozen other doors in the facility that may impact air flow, the HVAC system may be in a perpetually upset condition. In its assessment, the Silos 1 and 2 project should consider simple solutions (e.g., vertical plastic strip walls to baffle roll-up door openings).

Accelerated Waste Retrieval (AWR)

- The AWR project should be commended on the removal of the silo caps and expeditiously dealing with the unexpected water found under the caps.
- As the CAT has noted, to be successful on an accelerated schedule, turnover activities will need to be well planned and executed. The AWR project has made positive strides toward this goal by organizing turnover by systems, as opposed to rooms or areas.
- The CAT will review the new silo penetration and riser installation plan when it is released (scheduled for June 20th). In discussions with the AWR project, it appears that most of the changes to the document will enhance the effort to install risers in the silos (e.g. elimination of the plastic cover on the newly cut riser hole).
- The continuous operation of the RCS is a success. With the capacity of the two carbon beds exceeding expectations, the project may consider not installing the two additional carbon beds. Prior to making this decision, however, an engineering evaluation should be conducted to ensure the RCS has sufficient surge capacity to accommodate potential upset conditions during penetrating the silo domes and wall, and the simultaneous operation of AWR and Silos 1 and 2.

Title III

- The CAT is pleased that the silos project has co-located Jacobs Title III and engineering support personnel at Fernald. As these efforts progress, the CAT will be conducting reviews to evaluate the effectiveness of these activities (e.g. roles and responsibilities, decision-making processes, communication between the field and engineering).

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Upcoming Document And reviews

- Revision of Engineering Execution Plan (End of June, beginning of July).
- Revision of silo penetration and riser installation (June 20).
- Review Silo 3 test plan for packaging/handling/conditioning system and observe Silo 3 packaging station demonstration. (plan was scheduled for June onsite review; the demonstration is now scheduled for September).
- Observe Silos 1 and 2 integrate fill room test (August).
- CAT observation of Silos 1 and 2 cold test loop (August).

Recommendations

Recommendation 36-1: The Silo 3 project should undertake vacuum wand testing representative of the actual project conditions to ensure the wand system is sufficiently robust and performs as expected.

Recommendation 36-2: The Silo 3 project should reanalyze its HVAC flow directions to assure ventilation air is always flowing from clean areas to potentially contaminated areas.

Recommendation 36-3: The Silo 3 project should consider adding back-up power to its HVAC exhaust fans.

Recommendation 36-4: The Silo 3 project should consider adding a second, parallel HEPA filter on the pneumatic system air.

Recommendation 36-5: The Silos 1 and 2 project should re-analyze the potential for continuous (three lines, 24 hours per day) container filling operation.

Recommendation 36-6: The Silos 1 and 2 project should assess the practicality of the normal/bypass HVAC modes that are planned when the railcar loading room doors are opened.

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Appendix 1, CAT Report #36: Baseline Assumptions

The CAT has identified the following assumptions that may be contrary to DOE's best interests. DOE should consider risks these assumptions might pose and, if appropriate, take exception to specific assumptions. All page numbers are from the Silos replan baseline.

The replan baseline assumes:

- Only SSR's will be required for project startup (page 12 of 97). The validity of this assumption, in particular, should be resolved by DOE as soon as possible.
- No more than two assessments will be conducted per year by external organizations (page 2 of 97).
- EPA will review DCN's within one working day (page 5 of 97).
- DOE will complete the N-HASP review within 25 days (page 6 of 97).
- Silos retrieval equipment, filters, PPE will be disposed of in the OSDF (page 16 of 97).
- Disposal at NTS is a DOE cost (page 16 of 97).
- DOE will meet all designated review/comment and document approval times (page 12 of 97).
- No DOE Headquarters approvals required for Silo 3 (page 16 of 97).
- For revised documents, only changed pages will be submitted (page 17 of 97).
- Fluor will allow EPA 30 calendar days to review and approve a revised document or provide additional comments (page 18 of 97).
- The CAT will provide the independent reviews required by DOE 413.3-1 (page 19 of 97).
- Some heel removal equipment is procured with EM-50 funds (page 3 of 47).
- Readiness assessments will not be impacted by external reviews (page 5 of 47).
- A layout of AWR funds flow by FY does not present a realistic manloading scenario. Personnel cannot be hired, fired transferred in the quantities and within the times shown (page 16 of 47 through 47 of 47).
- Review comments that are deemed 'preference or excessive' will not be implemented without direction from the DOE CO (page 3 of 24).
- NTS disposal cost for Silos 1 and 2 is \$10/cubic foot, whereas NTS disposal cost for Silo 3 is \$6.50. Why is there a difference? (page 7 of 24)
- Significant amount of GFE to be provided the silos projects (e.g. eight fork trucks, two vans, three yard trucks, 1 truck scale, etc.) (page 9 of 24).
- The new schedule assumes an unrealistic amount of overtime, particularly for construction, contract management, turnover/startup and operation (19 of 36 through 25 of 36).
- The baseline assumptions include providing both AWR and Silos 1 and 2 with 2,000 cfm RCS capacity to support full-scale operation (page 5 of 47).
- Sufficient quantities exist of the worker classification effort onsite (page 6 of 24).
- Fluor claims will be settled within current limitations of liability (page 5 of 47).

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Judge reviews waste reclassification

■ *Decision expected in a few weeks on DOE request to reclassify high-level wastes*

By John Stang

Herald staff writer

BOISE — A federal judge expects to decide in a few weeks whether the Department of Energy can reclassify some high-level radioactive wastes as less dangerous so the material can be left in underground tanks.

U.S. District Court Judge B. Lynn Winmill heard arguments on the issue Friday from DOE and a coalition of environmental groups and tribes.

The Idaho-based Snake River Alliance, the Washington, D.C.-based Natural Resources Defense Council, the Yakama Indian Nation and the Shoshone-Bannock tribe sued last year to prevent the federal government from reclassifying the tank wastes to speed up nuclear cleanup.

The states of Washington, Oregon, Idaho and South Carolina have sided with the environmental groups because they don't want DOE to have broad waste reclassification powers.

DOE contends since it has not actually tried to reclassify any wastes, that the lawsuit is premature, involving hypothetical future scenarios.

The litigation focuses on DOE's sites at Hanford, Savannah River, S.C., and the Idaho National Engineering and Environmental Laboratory.

Hanford has 53 million gallons of radioactive wastes in 177 underground tanks. Savannah River has 34 million gallons and INEEL has 900,000 gallons.

DOE is making a nationwide push to speed up nuclear cleanup. That has prompted some caution among state regulators and environmental groups about the possibility of DOE taking shortcuts.

Attorney Geoffrey Fettus, representing the National Resources Defense Council, argued Friday that the Nuclear Waste Policy Act of 1982 requires all high-level

radioactive wastes eventually go to some type of permanent federal or commercial storage site.

Reclassifying high-level wastes so they can remain in the tanks goes against Congress' intent, he said.

"It's high-level wastes when it was produced. It was high-level wastes when it was poured into the tanks and high-level wastes until DOE magically designated it as something else," Fettus said.

Fettus claimed DOE already violated the law when it formally "closed" two tanks at Savannah River after keeping a small amount of wastes inside, mixed with a cementlike grout.

However, DOE attorney Barry Weiner argued, "The plaintiffs have made a lot of allegations of what could happen, but not on what actually happened."

He argued DOE would not violate the law if it reclassified wastes after treatment. Mixing tank wastes with grout or another cementlike substance is treating the wastes, he argued, and that would also dilute the concentration of radioactivity

within those wastes.

He also said the grouting of the Savannah River wastes fell under a separate DOE order outside the scope of the reclassification issue.

The judge asked what would happen if tank wastes are mixed with grout, and then are found to be radioactive enough to still be high-level wastes.

Weiner replied, "You can still remove the grout if needed."

At Hanford, the state and DOE already are feuding over what actions DOE can take — especially on tank waste issues — without state approval.

The state already is vehemently protesting DOE's decision to treat high-level radioactive technetium in tank wastes as a low-activity waste.

And in the next one or two years, the state and DOE plan to negotiate what "closure" means in cleaning up 26 Hanford tanks by 2006.

■ Reporter John Stang can be reached at 582-1517 or via e-mail at jstang@tri-city-herald.com.

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Nuke waste shipping remains a concern

BY SCOTT BAUER / The Associated Press

The safe shipment of nuclear waste materials was discussed at a meeting Wednesday of officials from seven Midwestern states.

"We want to make sure when shipments occur, they do so without event," Gov. Mike Johanns told the Council of State Governments committee on radioactive materials transportation.

The group meets twice a year and includes law enforcement personnel, lawmakers, health officials and others who might deal with waste shipments. States represented at Wednesday's meeting were Nebraska, Iowa, Illinois, Indiana, Minnesota, Wisconsin and Ohio.

The key to such gatherings is to discuss issues with representatives from the federal Department of Energy, said Tim Runyon with the Illinois Department of Nuclear Safety and chairman of the committee.

"The states are progressing toward improving communication with DOE regarding what types of material are on the road at any given time," he said. Johanns said communication has improved since 1996, when a semi-tractor trailer carrying two nuclear warheads slid off an icy road about 40 miles south of Valentine.

The truck was coming from Ellsworth Air Force Base near Rapid City, S.D., and was headed to Texas.

No radioactive material leaked, and no one was injured.

Since the terrorist attacks of Sept. 11, the safe shipment of nuclear material across the country has taken on added significance, Runyon said.

The Department of Energy has been working with the new Department of Homeland Security on waste transportation issues, said Patrice Bubar, an official representing the DOE at the meeting.

One issue to which the department is paying particular attention is the establishment of fees by states on the shipment of waste across their borders, she said.

The Nebraska Legislature this spring passed a bill, which will take effect in September, that sets a \$2,000 fee per cask of radioactive waste that comes through the state.

Similar fees are in place in Illinois, Indiana, Iowa and Minnesota.

Bubar said one unintended consequence of the fees was that waste will be shipped a different route to avoid paying them.

About 30 people attended the meeting, which began Tuesday and concludes today. The subcommittee on waste shipment concerns has been meeting since 1989.

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A CPA

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May 30, 2003

Associated Press Newswires

"Union cleaning up former uranium plant approves contract"

CINCINNATI (AP) - Union workers completing a federally funded cleanup of radioactive waste at former uranium processing plant have approved a new contract that extends through the project's expected completion in 2006, officials said Friday.

Fluor Fernald, the government contractor hired by the U.S. Department of Energy to clean up the Fernald plant site, said it expects to finish in 2006 if Congress keeps annual funding around the \$324 million provided this year.

The contract covering about 560 workers represented by the Fernald Atomic Trades and Labor Council provides pay increases of 9 percent the first year, 7.5 percent the second and 7 percent the third, company spokesman Jeff Wagner said.

Officials said 95 percent of votes were in favor of the contract. It is retroactive to March and will extend until Feb. 28, 2007, or closing of the site, whichever comes first.

The labor council is a coalition of unions that includes heavy equipment operators, hazardous waste technicians, maintenance operators, laborers and porters.

The contract gives Fluor Fernald more flexibility in changing the assignments of workers to respond to the project's changing needs, Wagner said.

A major remaining project will require removal of powdered metal oxide waste and World War II-era radium sludge waste from three deteriorating concrete silos on the 1,050-acre site, 18 miles northwest of Cincinnati. The waste will be treated, put into containers and shipped by truck or rail to an Energy Department disposal site in Nevada or the privately managed Envirocare disposal site in Utah, Wagner said.

Other ongoing projects include demolition and removal of old buildings, removal of contaminated soil and cleanup of an aquifer under the site.

The former Feed Materials Production Center plant began operating in 1951 to process uranium for the government's production elsewhere of nuclear weapons. Production was stopped in 1989 to focus on the cleanup.

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Weapons Complex Monitor

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"NTS LLRW Disposal Volumes"

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DOE APPROVED GENERATORS	Disposal Location	W/E: 25 May 03			FY 03 TOTAL			WMP TOTAL	
		No. of Ship.	Volume (Cu. Ft.)	Volume (Cu. M.)	No. of Ship.	Volume (Cu. Ft.)	Volume (Cu. M.)	Volume (Cu. Ft.)	Volume (Cu. M.)
ABERDEEN	Area 3	0	0	0.00	0	0	0.00	120	3.40
	Area 5	0	0	0.00	0	0	0.00	85,137	2,410.81
ALLIED SIGNAL	Area 5	0	0	0.00	0	0	0.00	413	11.69
BECHTEL NEVADA	Area 3	0	0	0.00	10	20,730	587.01	319,615	9,050.47
	Area 5	0	0	0.00	3	1,354	38.34	37,964	1,075.02
	Mixed	0	0	0.00	0	0	0.00	16,763	474.67
BRITISH NUCLEAR FUELS LIMITED	Area 3	0	0	0.00	106	50,263	1,423.29	512,425	14,510.24
	Area 5	16	24,450	692.35	230	379,098	10,734.84	767,257	21,726.26
FERNALD	Area 3	5	2,541	71.95	67	43,199	1,223.26	3,762,677	106,546.97
	Area 5	4	4,456	126.18	92	63,104	1,786.90	2,726,961	77,218.81
GENERAL ATOMIC DOE	Area 3	2	976	27.64	2	976	27.64	298,662	8,457.15
	Area 5	0	0	0.00	0	0	0.00	450,304	12,751.17
GENERAL ATOMIC CORPORATE	Area 3	0	0	0.00	0	0	0.00	494	13.99
	Area 5	0	0	0.00	5	3,408	96.50	33,591	951.19
INEEL	Area 3	0	0	0.00	1	162	4.59	732	20.73
	Area 5	0	0	0.00	0	0	0.00	1,614	45.70
IT CORPORATION	Area 3	0	0	0.00	0	0	0.00	419	11.86
	Area 5	0	0	0.00	0	0	0.00	8,392	237.63
	Mixed	0	0	0.00	0	0	0.00	56	1.59
LLNL, CA	Area 3	0	0	0.00	37	14,329	405.75	267,099	7,563.39
	Area 5	0	0	0.00	0	0	0.00	60,463	1,712.12
LRRRI	Area 3	0	0	0.00	0	0	0.00	3,732	105.68
	Area 5	0	0	0.00	0	0	0.00	6,974	197.48
MOUND	Area 3	0	0	0.00	44	115,894	3,281.75	259,814	7,357.10
	Area 5	1	2,053	58.13	14	23,160	655.82	1,943,429	55,031.69
OAK RIDGE RESERVATION	Area 3	0	0	0.00	44	22,837	646.67	44,644	1,264.18
	Area 5	0	0	0.00	0	0	0.00	40,487	1,146.46
PADUCAH	Area 3	0	0	0.00	11	21,893	619.94	21,893	619.94
	Area 5	0	0	0.00	67	40,160	1,137.20	63,807	0.00
PANTEX	Area 3	0	0	0.00	0	0	0.00	32,230	912.65
	Area 5	0	0	0.00	3	1,619	45.84	125,327	3,548.86
PRINCETON	Area 3	0	0	0.00	0	0	0.00	24,272	687.31
	Area 5	0	0	0.00	0	0	0.00	2,065	58.47

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June 2, 2003

Engineering News-Record

"The Top 200 Environmental Firms"

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TOP 20 IN CONSTRUCTION/REMEDATION

TOP 20 TOTAL REVENUE: \$6.84 BILLION

1	Bechtel	1,315.3	11	MWH	254.4
2	The Shaw Group	717.3	12	URS Corp.	225.0
3	Washington Group International Inc.	644.1	13	Tetra Tech Inc.	218.0
4	Fluor Corp.	634.8	14	Sevenson Environ. Svcs. Inc.	164.0
5	Peter Kiewit Sons' Inc.	391.0	15	Angelo Infrate Construction Co.	150.0
6	Black & Veatch	321.7	16	Garney Holding Co.	147.0
7	Jacobs Engineering Group Inc.	318.7	17	Alberici Corp.	146.2
8	Parsons	284.5	18	Western Summit Constructors Inc.	142.5
9	EARTH TECH	257.4	19	Braasfield & Gorrie LLC	126.7
10	CH2M Hill Cos. Ltd.	255.1	20	W. L. Halley and Co. Inc.	123.0

Figures are in \$ million and are rounded up or down.

TOP 50 ENVIRONMENTAL FIRMS BY NEW CONTRACTS*

RANK	FIRM	2002 NEW CONTRACTS \$ MIL.	RANK	FIRM	2002 NEW CONTRACTS \$ MIL.
1	U.S. Filter Corp.	6,800.0	26	Golden Associates Corp.	227.0
2	Tetra Tech Inc.	2,631.4	27	HDR Inc.	220.7
3	EARTH TECH	1,851.0	28	Braasfield & Gorrie LLC	201.2
4	Bechtel	1,814.0	29	Garney Holding Co.	194.8
5	CH2M Hill Cos. Ltd.	1,741.8	30	Remedial Construction Svcs. L.P.	175.0
6	URS Corp.	1,350.0	31	ENR International	168.8
7	AECOM Technology Corp.	1,320.0	32	Hazen and Sawyer P.O.	161.8
8	Washington Group International Inc.	1,284.2	33	URS Infrastructure & Environ. Inc.	160.0
9	Fluor Corp.	1,056.4	34	ATC Group Services Inc.	155.0
10	MWH	1,027.3	35	Sevenson Environ. Svcs. Inc.	154.9
11	The Shaw Group	1,018.0	36	Pizzagalli Construction Co.	152.0
12	Stantec Inc.	877.2	37	TRC	150.0
13	Black & Veatch	758.3	38	PBS&J	147.0
14	Parsons	708.8	39	W.L. Halley and Co. Inc.	121.0
15	CDM	640.0	40	BNFL Inc.	105.0
16	Solanco Applications Int'l Corp.	530.0	41	Burns & McDonnell	100.0
17	Battelle Memorial Institute	472.0	42	Conatoga-Rovers & Assoc.	100.0
18	Jacobs Engineering Group Inc.	418.3	43	Duratek Inc.	100.0
19	MACTEC Inc.	358.8	44	Carollo Engineers P.C.	99.0
20	Weston Solutions Inc.	349.4	45	ONDEO Degremont North America	92.1
21	The ERM Group	342.0	46	Entact LLC	91.8
22	ARCADIS	282.6	47	The Morganti Group Inc.	90.0
23	Malcolm Pirnie Inc.	253.2	48	Bowen Engineering Corp.	86.1
24	Peter Kiewit Sons' Inc.	238.4	49	Cajun Constructors Inc.	87.3
25	Western Summit Constructors Inc.	231.3	50	Taylor Bros. Inc.	81.1

* Total of new environmental contracts awarded in 2002, among those firms providing information.

done is the startling rise in surety costs. Major contractors haven't been complaining too loudly yet, but subcontractors are starting to feel the pinch. Still, "We haven't lost any subcontractors yet," says Mike Hughes, president of Bechtel Hanford. "We have been working with some subs and with DOE to find ways to work around performance bonds."

The agency is accelerating deadlines across its major installations, including Hanford Oak Ridge and the Idaho National Engineering and Environmental Laboratory. "At Idaho, the old baseline plan had cleanup running through 2070. The accelerated program has all of the Idaho cleanup being completed by 2035," says Sue Steiger, vice president of Bechtel's Idaho Completion Program.

The acceleration strategy "also includes more effective ways of getting work done," says Steiger. "The cost of cleanup is coming down. But there will be a measurable increase in funding to support the acceleration," she says.

That means a lot of work over the next five to 10 years. It also has cleanup firm executives wondering how massive remediation contracts will be replaced when they are gone.

At both its Hanford and Fernald, Ohio, sites, Doe renegotiated contracts "with the common theme of a 2006 closure date," says Ronald Oakley, president of the federal business arm of Fluor Corp. The transition "shifted focus from cost to schedule, all under the umbrella of safety and security." The agency is successfully creating "an understanding that these missions have to close," he says.

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Engineering News-Record

"The Top 200 Environmental Firms"

TOP 20 FIRMS BY CLIENTS**PRIVATE TOP 20 TOTAL REVENUE: \$7.61 BILLION**

1	U.S. Filter Corp.	3,080.0	11	Golden Associates Corp.	165.4
2	URS Corp.	482.6	12	MWH	156.5
3	EARTH TECH	449.5	13	TRC	156.1
4	CH2M Hill Cos. Ltd.	377.5	14	MACTEC Inc.	151.9
5	Black & Veatch	335.7	15	ENSR International	148.6
6	Tetra Tech Inc.	332.2	16	Duratek Inc.	145.8
7	Bechtel	309.5	17	ARCADIS	142.7
8	The ERM Group	294.8	18	Conestoga-Rovers & Assocn.	130.3
9	Parsons	271.0	19	Alberici Corp.	130.1
10	The Shaw Group	253.4	20	LVI Services Inc.	123.0

STATE/LOCAL TOP 20 TOTAL REVENUE: \$7.08 BILLION

1	U.S. Filter Corp.	2,352.0	11	Malcolm Pirnie Inc.	171.0
2	CH2M Hill Cos. Ltd.	608.2	12	Tetra Tech Inc.	166.1
3	MWH	606.6	13	HDR Inc.	162.9
4	CDM	407.5	14	Western Summit Constructors Inc.	142.5
5	EARTH TECH	398.0	15	Bechtel	128.9
6	Peter Kiewit Sons' Inc.	320.8	16	Braasfield & Gorrie LLC	127.3
7	Black & Veatch	314.7	17	Barney Holding Co.	117.6
8	Parsons	283.7	18	Brown and Caldwell	115.5
9	AECOM Technology Corp.	228.5	19	Angelo Infrate Construction Co.	112.5
10	URS Corp.	225.0	20	Pizzagalli Construction Co.	111.9

FEDERAL TOP 20 TOTAL REVENUE: \$8.52 BILLION

1	Bechtel	2,140.8	11	Science Applications Int'l Corp.	258.2
2	CH2M Hill Cos. Ltd.	1,055.1	12	BNFL Inc.	247.0
3	Washington Group International Inc.	835.6	13	MWH	215.2
4	Fluor Corp.	835.2	14	Waste Solutions Inc.	192.2
5	The Shaw Group	636.4	15	AECOM Technology Corp.	192.8
6	URS Corp.	582.5	16	U.S. Filter Corp.	168.0
7	Tetra Tech Inc.	530.8	17	EARTH TECH	148.5
8	Parsons	487.8	18	Duratek Inc.	145.8
9	Battelle Memorial Institute	354.0	19	MACTEC Inc.	118.1
10	Jacobs Engineering Group Inc.	327.8	20	CDM	88.6

Figures are in \$ million and are rounded up or down.

TOP 20 IN NUCLEAR WASTE**TOP 20 TOTAL REVENUE: \$4.98 BILLION**

1	Bechtel	2,037.4	11	Tetra Tech Inc.	72.7
2	Fluor Corp.	835.2	12	Safety and Ecology Corp.	38.8
3	CH2M Hill Cos. Ltd.	340.8	13	Waste Solutions Inc.	36.9
4	Washington Group International Inc.	330.4	14	Parsons	36.1
5	Duratek Inc.	291.8	15	Science Applications Int'l Corp.	34.8
6	BNFL Inc.	275.5	16	Ebarline Services Inc.	27.8
7	The Shaw Group	172.6	17	URS Corp.	25.0
8	Jacobs Engineering Group Inc.	138.8	18	Merrick & Co.	24.8
9	Battelle Memorial Institute	118.0	19	RCI Environmental Inc.	22.9
10	MACTEC Inc.	82.2	20	AECOM Technology Corp.	22.9

Figures are in \$ million and are rounded up or down.

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June 3, 2003
 Engineering News-Record
 "The Top 200 Environmental Firms"



HOW TO USE THE TABLES

RANKINGS: Companies are ranked below based on gross revenue they reported in 2002 for providing environmental services and products to domestic and international markets. The proportion of a firm's gross environmental services revenue to its total gross revenue is provided as a percentage. Revenue figures are in \$ millions. Percentages are rounded up or down to generate whole numbers.

Figures include revenue from all environmental subsidiaries unless otherwise noted. Category of non-U.S. represents revenue from environmental work performed outside the United States. Companies with subsidiaries included are designated by this symbol (†). These subsidiaries are listed by rank on pp. 78 and 79. Where necessary, individual numbered footnotes that clarify company information are at the bottom of each page. An alphabetical listing of The Top 200 Environmental Firms is found on p. 80.

TYPE OF FIRM: Designations are based on the largest proportion of environmental revenue reported by firms in seven categories: DES=Design, consulting and/or studies; CON=Construction and/or remediation; PM=Project and/or program management; EOP=Equipment and/or product manufacture; R&D=Technology and/or research & development; LAB=Laboratory and/or analytical services; OPS=Contract operations;

OTH=Services not included in the above categories. Two or more designations appear if the largest proportion of revenue is evenly split between two or more categories, or if these categories are within 5% of each other.

MARKETS: Markets are shown as a percentage of gross environmental revenue: HAZ WASTE=Chemical and industrial waste cleanup and/or material management; Lead and asbestos study, management and abatement; NUCLEAR WASTE=Nuclear or radioactive materials and waste handling, storage and/or disposal; SOLID WASTE=Municipal and other nonhazardous waste landfills and recycling facilities, etc.; AIR=Facility air pollutant emissions study, management and control; WATER QUALITY=Industrial and/or municipal water system supply and treatment; WASTEWATER TREATMENT=Industrial and/or municipal wastewater treatment systems; ENVIRONMENTAL COMPLIANCE=Site assessments, audits, studies, due diligence and activities related to general environmental compliance; OTHER=Environmental markets not included in the above categories.

CLIENTS: Work for types of clients is shown as a percentage of gross environmental revenue: PRIVATE=Private corporations; UTILITIES, OTHER; FEDERAL=Federal U.S. agencies and/or foreign governments; STATE/LOCAL=State and municipal entities. Markets and clients totals may not add up to 100% because of rounding.

RANK	FIRM	2002 ENVIRONMENTAL REVENUE		TYPE OF FIRM LARGEST % OF ENV. REV.	MARKETS (% OF ENV. REVENUE)							CLIENTS (% OF ENV. REV.)				
		% OF TOTAL (\$ MIL.)	% FIRM ALL FIRM NON- U.S.		HAZ. WASTE	NUC. WASTE	AIR	WATER	WASTE-WATER TRMT.	ENV. MGMT.	ENV. SO	OTH	PRIV.	FED.	LOCAL	
1	U.S. Filter Corp., Palm Desert, Calif.†	5,600.0	100	15	EOP	28	0	0	35	37	0	0	0	55	3	42
2	Bechtel, San Francisco, Calif.†	2,579.0	21	9	CON/DES	11	79	2	4	0	0	0	4	12	83	5
3	CH2M Hill Cos. Ltd., Englewood, Colo.†	2,040.8	84	10	DES	31	17	0	23	28	0	1	0	18	52	30
4	URS Corp., San Francisco, Calif.†	1,230.0	49	17	DES	47	2	8	11	4	10	18	0	37	45	18
5	Tetra Tech Inc., Pasadena, Calif.†	1,038.1	80	1	DES	15	7	4	40	5	15	14	0	32	52	16
6	Parsons, Pasadena, Calif.†	1,002.5	37	11	DES	60	4	7	3	8	9	9	0	27	47	28
7	The Shaw Group, Baton Rouge, La.†	897.6	31	7	CON	58	17	3	8	8	1	7	0	28	64	11
8	EARTH TECH, Long Beach, Calif.	880.0	65	54	OPS/PM/CON	11	1	2	39	41	2	4	0	45	15	40
9	Washington Group Int'l Inc., Boise, Idaho†	883.3	28	11	CON	52	34	0	14	0	0	0	0	5	85	10
10	MWH, Broomfield, Colo.†	978.4	69	38	DES	13	2	0	42	40	1	2	0	16	22	62
11	Fluor Corp., Aliso Viejo, Calif.†	835.2	8	0	CON	0	100	0	0	0	0	0	0	0	100	0
12	Black & Veatch, Kansas City, Mo.†	699.4	35	43	DES/CON	1	0	14	52	33	0	0	0	48	7	45
13	CDM, Cambridge, Mass.†	590.8	60	11	DES	19	1	1	32	34	11	2	0	18	15	68
14	Battelle Memorial Institute, Columbus, Ohio†	472.0	41	14	DES	0	25	0	0	0	25	60	0	20	75	5
15	AECOM Technology Corp., Los Angeles, Calif.†	457.0	28	29	DES	0	3	0	27	57	8	8	0	10	40	50
16	Jacobs Engineering Group Inc., Pasadena, Calif.	455.3	10	15	CON	50	30	0	5	5	10	0	0	12	72	16
17	Peter Kiewit Sons' Inc., Omaha, Neb.†	391.0	10	6	CON	0	0	0	78	24	0	0	0	8	9	82
18	Watson Solutions Inc., West Chester, Pa.	346.4	100	4	DES	52	11	4	2	18	10	3	0	27	35	18
19	The ERM Group, Exton, Pa.†	317.0	100	45	DES	45	0	15	1	3	28	8	0	93	6	1
20	Science Applications Int'l Corp., San Diego, Calif.	314.8	3	1	DES	44	11	1	1	1	20	20	2	11	82	7
21	MACTEC Inc., Alpharetta, Ga.†	310.0	84	0	DES	38	28	3	6	3	21	2	3	49	38	13
22	Duratek Inc., Columbia, Md.†	281.5	100	0	OPS/DES	0	100	0	0	0	0	0	0	50	50	0
23	BNFL Inc., Arlington, Va.†	275.5	100	10	PM	0	100	0	0	0	0	0	0	10	90	0
24	Malcolm Pirnie Inc., White Plains, N.Y.	224.8	100	1	DES	21	0	3	25	39	0	12	0	16	8	76
25	HDR Inc., Omaha, Neb.†	208.8	44	1	DES	18	0	3	14	31	0	34	0	9	13	78
26	TRC, Windsor, Conn.†	185.1	64	1	DES	30	0	5	5	0	30	30	0	80	10	10
27	Goldier Associates Corp., Atlanta, Ga.†	190.2	74	83	DES	28	1	3	6	1	22	38	2	67	7	6
28	ARADIS, Highlands Ranch, Colo.	178.4	71	4	CON	78	0	4	5	5	4	3	0	80	13	7
29	AMEC, Mississauga, Ontario†	178.0	80	48	DES	26	1	3	9	7	25	27	2	48	30	25
30	ENBR International, Westford, Mass.	168.8	100	8	DES	35	1	14	2	5	14	23	5	88	8	4

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Front Page and A6
"Change now the word at Fernald"

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Change now the word at Fernald

By Dan Klepal
The Cincinnati Enquirer

This isn't your DAD's Fernald. The former uranium processing plant 18 miles north of Cincinnati supplied raw materials for the nation's nuclear weapons program from 1953 until 1989. It left in its wake a 40-year legacy of secrets, deceit and radioactive contamination that long frustrated neighbors.

"It used to be the 'DAD' syndrome: they decide, they announce and they defend," said Lisa Crawford, president of the Fernald Residents for Environmental Safety and Health (FRESH), which has been battling with the government over the site for 19 years.

Even the initial cleanup effort got off to a rocky start as managers tried to cut the public out of the decision-making, misled people about the extent of the pollution and misspent millions in a scandal that threatened to cost construction giant Fluor Daniel its contract to clean up the Superfund site.

Today, as the \$4.4 billion project winds toward transformation into park and wetlands in 2006, Fluor remains on the job and some of Fernald's harshest critics say there has been a sea change - in the contractor and the Department of Energy, which is overseeing the effort.

Both are now committed to involving the public in decisions and are open about operations there. On Tuesday, the last of thousands of public tours will be given as Fernald cleanup moves into its most intricate phases.

"We went from it being a totally classified, secret place to being a totally open place," Crawford said. "It's like night and day."

Long history

The Fernald area of Crosby Township has long been linked to the nation's defense.

In the late 1700s, land in the Fernald area was granted by the U.S. government to veterans of the Revolutionary War. Years later, Fernald Station - as the crossroads community was first called - was a blockhouse built as a refuge for settlers from Indian attack.

Then, in 1951, the Atomic Energy Commission bought 1,200 acres near Fernald for its Feed Materials Production Center - called that because its mission was to convert uranium ore into high-purity uranium, or feed material, for other nuclear plants that used it in reactors to make plutonium.

The refinery did not produce or handle explosive devices, nuclear weapons or highly radioactive materials.

But the site shed 10 pounds of metallic waste for every pound of high-quality uranium produced. It also was used to store an additional 9,700 tons of low-level radioactive waste - some with the consistency of a mucky sludge, some more like powder - in three concrete silos on the western edge of the property.

When the Department of Energy selected Fluor from a field of three companies for the massive cleanup in 1992, it marked the first time the U.S. government hired anyone to clean up one of its nuclear plants.

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"Change now the word at Fernald"

"There has been a change in our corporate culture since 1992, you bet," said Jamie Jameson, president of Fluor Fernald Inc., the subsidiary of Fluor Daniel established to handle the Fernald project. "We sit down with members of the public almost weekly. They tell us when we're not going down the right path, and that's healthy.

"We try to lay it all out on the table because they have to understand what we're dealing with out here."

That change was far from voluntary.

A series of lawsuits and government investigations - one of which was sparked by an *Enquirer* series - led to the conclusion that managers failed to notify workers of dangerous working conditions; were lax in safety standards and allowed radioactive dust to permeate many buildings; lied about the amount of radioactive discharges into the air and water; and hid safety concerns from the public.

In June 1986, the Sierra Club reported that radioactive pollution was leaching from waste pits into the Great Miami Aquifer. Fernald officials denied the report. So, too, did the Ohio Environmental Protection Agency.

Four days later, the OEPA confirmed the waste was escaping.

About the same time, a Congressional investigation uncovered documents showing Fernald officials knew in 1960 that waste pits were contaminating ground water.

Fernald officials also told the public that Paddy's Run creek was not polluted. It was. The government told neighbors uranium dust was too heavy to float beyond plant boundaries. It did.

A class-action lawsuit brought by former Fernald workers ended in 1994 with a \$15 million settlement that brought stacks of long-secret documents to light. Those documents revealed, among other things, that Fernald managers were aware since the 1960s that workers were exposed to potentially dangerous levels of radioactive uranium dust, along with other hazards, and took no action.

A success story

Neighbors also won on their day in court. A class-action lawsuit, brought on behalf of FRESH but representing 14,000 residents, ended with a \$73 million settlement and lifetime medical monitoring.

Cincinnati attorney Stan Chesley handled both suits.

"But for those lawsuits, the truth would have never got out," Chesley said. "Up until that time, if you even talked about the plant you were subject to prison or being called a communist."

Although nearly 60 percent of the site has been cleaned - about 617 acres - some of the most difficult work still remains. All but 200 acres will be returned to the public as undeveloped park and wetlands.

Bill Muno, director of the U.S. EPA's Superfund division for the Midwest, said the project has evolved into a success story.

"It's a pretty large project that is both technically complicated and has a lot of regulatory complexities," Muno said. "That has required a good working relationship between the agencies and a lot of public participation."

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"Change now the word at Fernald"

"I think it shows how public involvement can drive a project."

Crawford, of FRESH, agrees with that but says it took a long time to get those agencies to acknowledge the public's right to participate.

She also says her family drank water from the aquifer for more than four years before the government admitted to polluting it.

"I feel like I'm 100 some days, instead of 46," Crawford said. "We were young when it started. It's a good success story, but there's always that nagging worry in the back of my mind."

INFOGRAPHIC (PDF)
Six major projects remain before cleanup is complete

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For former Cold War uranium plant, a \$4.4 billion transformation from weapons to wetlands

There are six major projects remaining before cleanup at the former Fernald uranium processing plant in northwest Hamilton County is completed in 2006. Those projects are detailed below. Fernald at a glance: The plant: Fernald produced raw materials for atomic bombs from 1953 until operations ceased in 1989. The plant took raw ore and

produced high-grade uranium, which was shipped to plants that manufactured the bombs. The cleanup: Fernald was the first nuclear-weapon plant where the U.S. Department of Energy hired a company to focus on cleanup rather than production. That company, Fluor Daniel, started the \$4.4 billion Superfund cleanup in 1992. Some of the most complicated

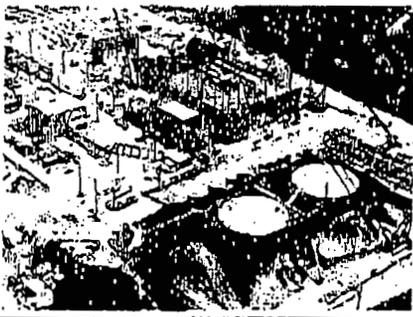
aspects of it remain to be done in these last four years. The Future: All but 120 acres of the 1,050-acre site will be converted to parkland or wetlands. One area will house low-level radioactive waste and will remain off-limits to the public and be monitored by the Department of Energy in perpetuity.



Silos

- **Site:** Two silos filled with low-level radioactive sludge, some of which dates back to the 1940s are Manhattan Project. A third silo is filled with radioactive powder.
- **Cleanup:** This is the most complex and dangerous project at the site. Crews must remove 17,000 cubic yards of waste from three silos and clean the air of radon gas in two of those silos. The sludge will be pumped out then mixed in concrete before being loaded into steel containers for

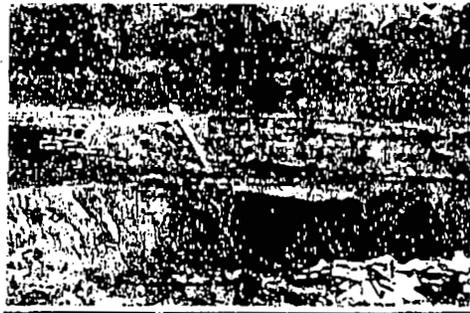
- shipment by truck or rail to Nevada or Utah. The tank will be removed with remote-controlled machines to remove the powder before it's loaded into containers before being transported by truck to Nevada.
- **Completion:** The superstructure of building, pipes and equipment is about 65 percent finished. Project is scheduled for completion in 2006.
- **Cost:** \$400 million.
- **Future use:** Undeveloped parkland.



Waste pits

- **Site:** Six waste pits - varying in depth from 13 feet to 30 feet - that contained more than 1 million tons of low-level radioactive waste. The pits sit on 37 acres.
- **Cleanup:** Dig out the waste with backhoes by workers wearing respiratory

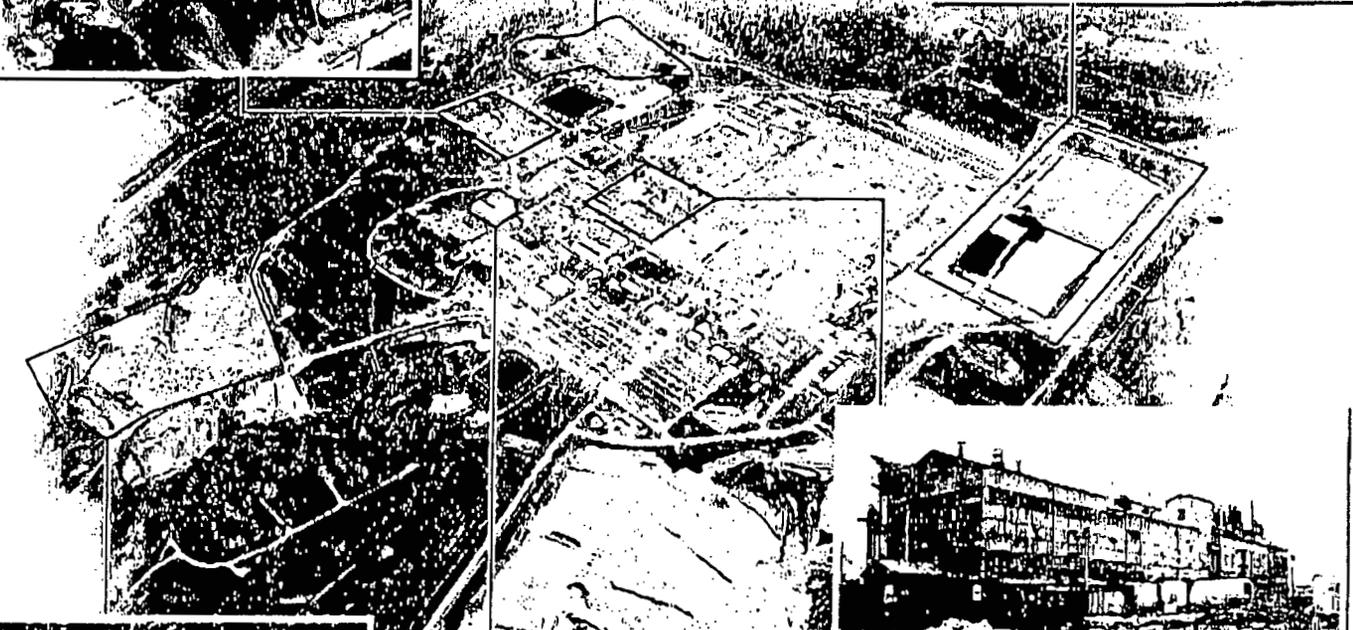
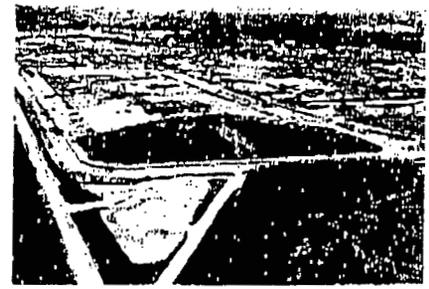
- suits, then load it into rail cars for shipment to Utah.
- **Completion:** July 2004.
- **Cost:** \$330 million.
- **Future use:** Undeveloped parkland and wetlands.



On-site disposal facility (includes all soil remediation)

- **Site:** 120-acre size.
- **Cleanup:** Excavated 2.4 million cubic yards of soil, foundations and below-grade piping before creating five "cells," which will permanently hold 2.7 million cubic yards of contaminated soil and debris. From the outside, the cells look like large

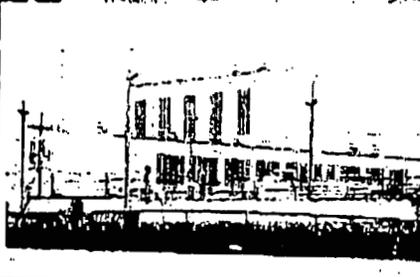
- mountains of dirt. The site will be managed by the DOE in perpetuity.
- **Completion:** 2006.
- **Cost:** \$400 million.
- **Future use:** Long-term storage of radioactive waste that will make the area off-limits to the public.



Southern waste unit

- **Site:** This 38-acre site was used as a dumping ground for fly ash, construction debris and other waste from the plant. It was a major source of aquifer contamination.
- **Cleanup:** All waste was removed, along with about 40-foot of soil across the entire site

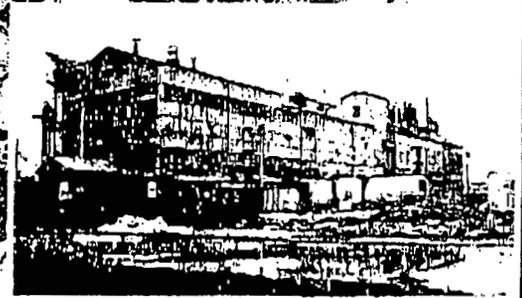
- which amounted to 400,000 cubic yards. Crews are in the process of planting more than 1,000 trees and shrubs, as well as native flowers and grasses.
- **Completion:** July 2003.
- **Cost:** \$12 million.
- **Future use:** Undeveloped parkland and wetland.



Aquifer restoration

- **Site:** The treatment facility is in place to treat 228 acres of the Great Miami aquifer, one of the largest sole-source aquifers in the nation.
- **Cleanup:** Cleanest water is pumped either into the area or injected back into the aquifer, which has the effect of pushing contaminated aquifer water toward the extraction wells. Thus far,

- more than 12 billion gallons have been treated.
- **Completion:** Will remain home of a water treatment facility for continued treatment of the aquifer for several years beyond 2006.
- **Cost:** \$310 million.
- **Future use:** Undeveloped parkland.



Decontamination and demolition in the production area

- **Site:** Complete shutdown of former production buildings by removing uranium material from process lines and piping before dismantling 122 structures.
- **Cleanup:** All building rubble, along with

- soil underneath each foundation, must be removed to a hazardous waste landfill.
- **Completion:** 2006.
- **Cost:** \$230 million.
- **Future use:** Undeveloped parkland.

Fernald by the numbers

- Amount of uranium and other materials produced: 500 million pounds.
- Amount of waste per 1-pound of uranium produced: 10 pounds.
- Number of workers at peak production: 2,801.
- Total number of workers during production: 7,000.
- Cost of cleanup: \$4.4 billion.
- Number of recoverable Occupational Safety & Health Administration injuries suffered on cleanup the site: 1,887.
- Amount paid to neighbors and workers in lawsuits: \$93 million.
- Number of acres of aquifer water contaminated: 225.
- Number of gallons of aquifer water cleaned: 12 billion, which equals all the water in a 10-mile stretch of the Ohio River.

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Pages 4 & 5

"Cleanup program to ask Congress to allow reprogramming of funds"

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CLEANUP PROGRAM TO ASK CONGRESS TO ALLOW REPROGRAMMING OF FUNDS

Sites Receive Final FY03 Allocations

The Dept. of Energy's Office of Environmental Management will submit a major reprogramming request to Congress this week (June 9) in an attempt to minimize the impacts of spending cuts included in the FY 2003 Omnibus Appropriations Act, DOE officials revealed last week. However, it is unclear which sites will be affected or how much money is proposed to be shifted, as the Department declined to comment further. "A reprogramming request is being worked with the cognizant Congressional committees," a senior DOE official told *WC Monitor*. "At this time we are not prepared to discuss the specific impacts to the sites. However, I can assure you that every effort is being made to utilize prior-year carryover balances to mitigate any impacts."

The \$45 million rescission and \$118 million general reduction (*WC Monitor*, Vol. 14 No. 9) included in the Act were largely unexpected, and headquarters has been seeking comment from site managers on the impact proposed funding levels will have on cleanup schedules. The Department has been trying for the last four months to work out the details of distributing the spending cuts, and only recently informed cleanup sites of their final FY03 allocation (*see chart*). The FY 2003 omnibus appropriations act includes \$6.77 billion for DOE defense cleanup programs within EM, a decrease of \$127 million from the Administration's request. The overall EM appropriation—including \$213.3 million for non-defense environmental management—is \$6.96 billion, \$44 million shy of the Administration's request. ■

OFFICE OF ENVIRONMENTAL MANAGEMENT FY 2003 ADJUSTED APPROPRIATIONS (Dollars in Thousands)	
Office	FY 2003 Adjusted Appropriations
Albuquerque	\$ 171,564
Carlsbad	218,157
Chicago	56,965
D&D Fund Deposit	432,731
Headquarters	173,585
Idaho	703,547
Nevada	94,983
Oak Ridge	486,952
Oakland	86,685
Ohio	576,273
Paducah	116,256
Portsmouth	181,547
Richland	873,747
River Protection	1,125,025
Rocky Flats	696,311
Savannah River	1,280,424
Science & Tech.	115,697
U/Th Reimbursement	15,896
Subtotal, EM	7,405,075
General Reduction-Use of Prior Year Balance	(5,546)
Federal Contribution to UE D&D Fund	(432,731)
Reimbursable Work for Others	(4,347)
Prior Year Sources Offset to Reprogramming	—
Total, EM	6,963,451

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"At Fernald...Fluor, Union agree to contract"

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AT FERNALD FLUOR, UNION AGREE TO CONTRACT

After eight months of negotiations, members of the Fernald Atomic Trades and Labor Council (FAT&LC) and Fluor Fernald have agreed on a new contract. More than 95 percent of union members voted May 29 in favor of the new contract that replaces the previous contract, which expired March 1. The new contract is retroactive to March 2003 and will extend until Feb 28, 2007 or site closure, whichever comes first. FAT&LC represents the employees

in the production, maintenance, and service job classifications that were part of the Fernald production mission beginning in 1951 and cleanup since the early 1990s. Job classifications include Heavy Equipment Operators, Hazardous Waste Technicians, Maintenance operators, Laborers and Porters.

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June 5, 2003
The Cincinnati Enquirer
Page C2

"Last chance to tour Fernald plant"

Last chance to tour Fernald plant

Today is the deadline to sign up for the last public tour of Fernald, the former uranium processing plant in Crosby Township.

The last public tour is Tuesday, and more than 400 people have signed up for the event, which features a free cookout. Tours are free and will start at 5:30 p.m. and 6:30 p.m.

The \$4.5 billion cleanup of Fernald is heading toward a 2006 completion. But the tours will end after next week because most of the structures within the 1,000-acre site will be torn down after this year and access roads will be destroyed.

To reserve a spot on the tour, call Jeannie Foster at 648-5883.

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The Cincinnati Enquirer

On-line edition

"Fernald ties strong with former workers"

Fernald ties strong with former workers

By Dan Klepal

The Cincinnati Enquirer

CROSBY TWP. - Jim Anness has seen the highs and lows of Fernald.

A retired pipe fitter who toiled for 30 years at the former uranium processing plant and current Superfund cleanup project, Anness hammered asbestos off pipes while it fell around him like snow, and was once sent to cap a pipe atop a concrete silo that contained radioactive waste from the first nuclear weapons tests.

All that work was done without a respirator.

On Tuesday, as part of the last public tour of the facility, the 65-year-old Dover, Ind. resident saw the high point of Fernald: A \$4.4 billion cleanup that is nearing its 2006 completion date on time and on budget.

It's a restoration that will eventually return more than 900 acres to nature in the form of undeveloped park and wetlands.

"It was a hard way to make a living, but it was the best money around," Anness said. "Driving around here, all the memories came back and it almost felt like yesterday. I worked in every building, on every roof and in every hole on this site."

Some of the people Anness worked with are dead; others still work at the plant. Anness is in good health, although he suddenly went blind in his left eye last year. He doesn't know why - radiation or growing older. The one thing he's sure of is that he was exposed to a lot of radiation.

Still, like most of the 400 former employees who took the tour, Anness is proud of what was accomplished here: More than 500 million pounds of high grade uranium were manufactured at the foundry between 1953 and 1989, providing the raw materials for the country's nuclear weapons program during the Cold War.

"I was a part of history, and that's a good feeling," Anness said. "I know one thing for certain: we made the best uranium in the world."

Homer Bruce feels the same way. He started at the plant before production did, in 1952. The 75-year-old Mount Healthy man started as a clerk in production and ended his career in the public relations department. In between, he worked in personnel, where he interviewed and hired hundreds of people and met his wife. His career at Fernald spanned 43 years.

Many of the people Bruce interviewed for jobs were there Tuesday, giving him a hearty handshake or a slap on the back along with a sincere thank you.

"Most of the people we hired in the early days were just home from the war, then protected the country again by working in a facility like this," he said. "The dedication of those people was just incredible. Coming back, it's great to see those people I loved like brothers and sisters."

"And I'll go away with a pretty good feeling. What they set out to do (clean the site), it looks like they're well on the way."

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The Cincinnati Enquirer

On-line edition

"Fernald ties strong with former workers"

Fernald looked more like a carnival Tuesday than a Superfund site.

School buses drove people around the site, while workers grilled hotdogs and bratwurst with baked beans. Families - sometimes four generations worth - sat at picnic tables in front of the administration buildings.

Jamie Jameson, president of the company hired by the government to clean up the site, got into the act by serving hot dogs.

"I've been cooking all afternoon," he said. "We've got a good group of people here. You've got to appreciate the people who did all the work."

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June 18, 2003
The Harrison Press
Front page
"The last tour"



The last tour

John Long, left, and his wife Carol Long, add their signatures Tuesday, June 10, to a commemorative photograph of the Fernald site. The couple joined area residents and about 500 former employees for the last public tour of the former uranium processing plant in Crosby Township. Buses took tour participants throughout the site to view cleanup progress. Former employees were amazed to see empty, desolate areas that once held the buildings where they worked. Tourists saw silos containing low-level contaminated material in the process of being sealed. On the lowest portion of the Fernald site, the surface of the Great Miami Aquifer was visible where it pooled at the bottom of a pit. People were driven past large, innocent-looking, grass-covered mounds that held contaminated material. A large portion of the site contains deserted, graffiti-covered buildings, waiting to be torn down. Tour guides amazed the group when they said the cost of cleanup is projected to be \$3.7 billion - the amount of money it would take to cover the 1,050-acre site with \$10 bills or the 136-acre contaminated area with \$100 bills.

Staff(Emmick)photo

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June 18, 2003

The Harrison Press

Pages 3A and 4A

"Update from Fernald shows cleanup progress"

Update from Fernald shows cleanup progress

Here is an update of cleanup activities at the former Fernald uranium processing facility.

Silos Project update

Construction crews at the Accelerated Waste Retrieval (AWR) Project are assembling the Silo 2 bridge piers and complete erection of the Transfer Tank Area Building. They'll also begin construction on the concrete and steel for the AWR test stand.

Workers at the Silos 1 and 2 Project will start Phase I steel erection for the treatment facility, install the piping and cable tray on the existing pipe rack and finish the warehouse building. At Silo 3, workers will begin construction on the waste handling facility walls.

For more information, 648-3076.
Email: nina.akgunduz@fernald.gov.

Waste Management Project update

The Waste Management (WM) organization continues packaging low-level waste for transfer to the waste pits and off-site shipment to the Nevada Test Site. The project met a major milestone on May 23, with the last shipment of legacy waste. Employees will continue to push towards the final WM milestone by clearing all waste from the Plant 1 pad by June 30.

For more information on the Waste Management Project, 648-3110.
Email: john.satler@fernald.gov.

Site Environmental Report available

The 2002 Site Environmental Report (SER) is available at the

Continued on Page 4A

Fernald

Continued from Page 3A

Fernald Public Environmental Information Center (PEIC) at the Fernald site, (513-648-5051).

By the end of June the document will also be available at www.fernald.gov. The annual report presents results from Fernald's environmental monitoring conducted during 2002, along with a summary of DOE's progress toward final remediation of the site.

For more information, 648-3166.
Email: kathi.nickel@fernald.gov.

Fernald Citizens Advisory Board

(FCAB) update

The FCAB Stewardship Committee met Wednesday, June 11. The meeting included a discussion concerning records and long-term stewardship issues.

A full FCAB Meeting took place Thursday, June 12, at the Crusby Township Community Center, 8910 Willey Road. The meeting focused on the waste pits and silos projects, other project updates, and FCAB membership.

For more information, 648-3153.
Email: gary.stegner@fernald.gov.

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"Cincinnati Habitat for Humanity full page ad"

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For more information call 621-4147 ext. 227 or visit www.cincinnati-habitat.org

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June 2003
Engineering News-Record
"The Top 500 Design Firms"

The Top 500 Design Firms

HOW TO USE THE TABLES

COMPANIES are ranked according to revenue for design services performed in 2002 in \$ millions (*). Firms not ranked last year are designated **. Some markets may not add up to 100% due to omission of "other" miscellaneous market category and rounding. NA=Not available.

KEY TO TYPE OF FIRM: A=architect; E=engineer; EC=engineer-contractor; AE=architect-engineer; EA=engineer-architect; ENV=environmental; GE=geotechnical engineer; P=planner; O=other. Other combinations possible. Firms classified themselves.

GENERAL BUILDING=commercial buildings, offices, stores, educational facilities, government buildings, hospitals, medical facilities, hotels, apartments, housing, etc.

MANUFACTURING=auto, electronic assembly, textile plants, etc.

POWER=thermal and hydroelectric powerplants, waste-to-energy plants, transmission lines, substations, cogeneration plants, etc.



WATER SUPPLY=dams, reservoirs, transmission pipelines, distribution mains, irrigation canals, desalination and potability treatment plants, pumping stations, etc.

SEWERAGE/SOLID WASTE=sanitary and storm sewers, treatment plants, pumping plants, incinerators, industrial waste facilities, etc.

INDUSTRIAL PROCESS=pulp and paper mills, steel mills, nonferrous metal refineries, pharmaceutical plants, chemical plants, food and other processing plants, etc.

PETROLEUM=refineries, petrochemical plants, offshore facilities, pipelines, etc.

TRANSPORTATION=airports, bridges, roads, canals, locks, dredging, marine facilities, piers, railroads, tunnels, etc.

HAZARDOUS WASTE=chemical and nuclear waste treatment, asbestos and lead abatement, etc.

TELECOMMUNICATIONS=transmission lines and cabling, towers and antennae, data centers, etc.

RANK	FIRM	TYPE OF FIRM	2002 REVENUE*		MARKETS (% OF REVENUE)											2002 RANK
			TOTAL	INT'L	GEN. BLDG.	MFG.	POWER	WATER SUPPLY	SEWER/WASTE	INDUS./PETRO.	TRANSP.	HAZ. WASTE	TELE. COMM.			
1	URS, San Francisco, Calif.	EAC	2,887.3	325.1	15	3	4	3	4	12	29	19	1	1		
2	Bechtel, San Francisco, Calif.	EC	2,090.0	735.0	0	1	42	0	0	31	6	13	7	2		
3	Fluor Corp., Aliso Viejo, Calif.	EC	1,959.9	730.8	1	1	10	0	0	79	1	5	2	5		
4	Jacobs, Pasadena, Calif.	EAC	1,898.8	543.8	14	8	0	0	2	51	18	0	0	3		
5	AECOM Technology Corp., Los Angeles, Calif.	EA	1,728.1	407.0	24	0	0	7	15	0	50	4	0	4		
6	Earth Tech, Long Beach, Calif.	E	1,487.0	527.0	2	2	8	30	28	1	11	18	0	6		
7	CH2M HILL Cos. Ltd., Denver, Colo.	EA	1,327.8	177.5	0	10	4	19	16	4	17	30	4	8		
8	Parsons, Pasadena, Calif.	EC	1,289.2	241.5	3	0	13	1	3	23	26	16	12	7		
9	ABB Lummus Global, Bloomfield, N.J.	EC	899.5	888.2	0	0	0	0	0	100	0	0	0	13		
10	Tetra Tech Inc., Pasadena, Calif.	E	882.0	4.0	16	7	2	20	7	7	3	31	7	11		
11	Parsons Brinckerhoff Inc., New York, N.Y.	EAC	823.3	280.4	8	0	12	2	2	2	71	1	1	10		
12	Foster Wheeler Ltd., Clinton, N.J.	EC	814.0	588.0	0	1	27	0	1	60	1	0	0	16		
13	MWH, Broomfield, Colo.	EC	793.1	335.2	0	0	13	34	34	0	0	18	0	14		
14	Framatome ANP Inc., Lynchburg, Va.	E	697.0	0.0	0	0	100	0	0	0	0	0	0	19		
15	Black & Veatch, Overland Park, Kan.	EC	686.9	159.2	1	0	45	29	17	3	2	1	1	12		
16	The Shaw Group Inc., Baton Rouge, La.	EC	600.2	144.0	2	3	49	0	2	5	3	34	0	21		
17	Kellogg Brown & Root (KBR), Houston, Texas	EC	597.5	459.7	2	0	1	3	6	71	8	0	0	9		
18	AMEC, New York, N.Y.	E	572.0	298.0	4	8	10	3	1	48	10	1	0	**		
19	CDM, Cambridge, Mass.	EC	508.0	85.5	1	1	0	23	42	1	8	23	0	17		
20	Washington Group International Inc., Boise, Idaho	EC	488.4	29.1	0	3	19	2	0	17	25	33	0	15		
21	HNTB Corp., Kansas City, Mo.	EA	479.8	0.4	8	0	0	0	3	0	91	0	0	18		
22	The Louis Berger Group Inc., East Orange, N.J.	EA	442.4	332.1	0	0	3	4	14	0	76	2	0	22		
23	HDR, Omaha, Neb.	EA	428.8	2.9	20	0	3	12	19	0	41	5	0	20		
24	MACTEC Inc., Alpharetta, Georgia	EC	408.0	0.0	25	17	3	4	3	10	13	23	1	39		
25	PBS&J, Miami, Fla.	E	344.5	0.0	3	0	1	17	17	0	61	0	0	29		
26	Mustang Engineering LP, Houston, Texas	E	340.0	89.0	0	0	0	0	0	100	0	0	0	38		
27	Sargent & Lundy LLC, Chicago, Ill.	EA	335.0	52.0	0	0	100	0	0	0	0	0	0	25		
28	CDI Engineering Group, Philadelphia, Pa.	E	328.3	108.3	14	4	18	2	2	49	11	0	2	28		
29	Carter & Burgess Inc., Ft. Worth, Texas	EA	322.8	0.8	42	2	3	5	7	3	33	1	0	000043		
30	The ERM Group, Exton, Pa.	ENV	317.0	140.4	0	0	0	0	5	0	0	95	0	32		

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The Top 25 in Industrial Process

RANK*	FIRM	\$ MIL
1	Jacobs	523.7
2	Fluor Corp.	372.3
3	Bechtel	268.0
4	URS	190.0
6	Foster Wheeler Ltd.	171.0
6	AMEC	166.0
7	Lockwood Greene	164.3
8	BE&K Inc.	138.8
9	Aker Kvaerner Inc.	128.0
10	Washington Group International Inc.	85.0
11	Parsons	67.8
12	CH2M HILL Cos. Ltd.	47.3
13	CDI Engineering Group	38.3
14	Tetra Tech Inc.	38.0
18	Kellogg Brown & Root (KBR)	35.2
15	Process Facilities Inc.	34.0
17	CUH2A Inc.	28.4
16	TRC	28.2
19	S&B Engineers & Constructors Ltd.	27.0
20	380E Inc.	23.8
21	Sear Brown	20.4
22	Gannett Fleming	18.1
23	Earth Tech	18.0
24	Harris Group Inc.	17.2
25	Foth & Van Dyke and Associates Inc.	15.8

*BASED ON 2002 DESIGN REVENUE FROM INDUSTRIAL PROCESS AS REPORTED IN ENR'S SURVEY OF LEADING CONTRACTORS AND DESIGN FIRMS.

to look at projects that were delayed," says Rob Smith, Lockwood Greene's group director for chemicals and plastics. Demand for chemical products dropped about 10% after the 2001 terror attacks. Some product lines are recovering although not yet back to pre-9/11 days. Pent-up demand for products keeps companies optimistic. "We see a light at the end of the tunnel, but it won't be a sudden boom," Smith says. Lockwood Greene keeps busy with service work, especially maintenance, and with small projects that optimize plant performance.

Food and beverage is another topsy-turvy E&C sector. "It's been a roller coaster ride," says Burt Young, director of food and beverage for Lockwood Greene. The market was robust early

in 2003 but slowed during the Iraq war. With the war over, he expects to see new activity in the second half of the year.

Food and beverage market niches have unique trends. Generally, the hub of processed food distribution is moving west from Chicago and Indianapolis toward Texas, Arkansas and Missouri, says Young. Stellar Group has taken broadened expertise in low-temperature refrigeration to produce power for food and beverage clients. The firm helps customers control energy costs by installing central utility plants at processing facilities, including one in a new 400,000-sq-ft factory designed and built for Nestlé Corp. in Jonesboro, Ark.

Across all industrial markets, the push for capital efficiency is a common thread, says Charles Harrington, president of Parsons Corp.'s commercial technology group. Companies are eyeing integrated services such as EPC and design-build. Parsons has leveraged its experience and expertise in project management to pursue that work and has invested in technologies, such as a new document management system, to be more efficient.

Fluor Corp. officials say the Aliso Viejo, Calif.-based firm's operations and maintenance work has positioned it to help clients meet a need for investment efficiency. While the aluminum smelting market is still soft, manufacturers are using the current low cost of capital to install new technologies to cut energy use, says Bob McNamara, group executive for Fluor's industrial and infrastructure business.

Steel is another market that must upgrade technology, says Andy Kapusta, Lockwood Greene's steel sector director. Production changes under development include eliminating the

The Top 5 in Steel and Nonferrous Metal Plants

RANK*	FIRM	\$ MIL
1	Bechtel	217.0
2	Aker Kvaerner Inc.	27.0
3	Lockwood Greene	18.8
4	Fluor Corp.	8.8
5	S/D Engineers Inc.	6.5

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

The Top 10 in Food Processing

RANK*	FIRM	\$ MIL
1	Lockwood Greene	38.8
2	Fluor Corp.	27.2
3	AMEC	28.0
4	Jacobs	24.8
6	Washington Group International Inc.	17.0
8	A. Epstein and Sons International Inc.	16.0
7	The Stellar Group	15.7
8	Parsons	18.0
9	CH2M Hill Cos. Ltd.	12.0
10	Atkins Americas	10.8

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

The Top 10 in Pulp and Paper Mills

RANK*	FIRM	\$ MIL
1	Jacobs	189.4
2	BE&K Inc.	51.9
3	AMEC	60.0
4	Aker Kvaerner Inc.	18.0
6	Harris Group Inc.	14.0
8	Tetra Tech Inc.	13.0
7	Bechtel	7.0
8	Earth Tech	7.0
9	CH2M Hill Cos. Ltd.	6.9
10	S&B Engineers & Constructors Ltd.	6.0

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

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The Top 15 in Pharmaceutical Plants

RANK*	FIRM	\$ MIL.
1	Fluor Corp.	189.2
2	Jacobs	184.7
3	Foster Wheeler Ltd.	112.0
4	Aker Kvaerner Inc.	80.0
5	Lockwood Greene	77.0
6	Washington Group International Inc.	47.0
7	Process Facilities Inc.	34.4
8	CH2M Hill Cos. Ltd.	28.4
8	CUH2A Inc.	28.8
10	CDI Engineering Group	26.0
11	AMEC	21.0
12	Sear Brown	19.1
13	Paulus, Sokolowski and Sartor LLC	16.8
14	SSEO Inc.	14.8
15	TRC	13.8

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

The Top 15 in Chemicals

RANK*	FIRM	\$ MIL.
1	Jacobs	154.7
2	Fluor Corp.	133.7
3	Day & Zimmermann Group	78.7
4	BE&K Inc.	71.9
5	Foster Wheeler Ltd.	62.0
6	Parsons	37.0
7	Lockwood Greene	35.8
8	Bechtel	31.0
9	S&B Engineers & Constructors Ltd.	21.0
10	Washington Group International Inc.	21.0
11	TRC	13.8
12	CDI Engineering Group	10.8
13	Orbital Engineering Inc.	7.1
14	AMEC	7.0
15	O'Neal Inc.	6.6

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

The Top 25 in Petroleum

RANK*	FIRM	\$ MIL.
1	Fluor Corp.	1,188.0
2	ABB Lummus Global	889.6
3	Jacobs	441.3
4	Kellogg Brown & Root (KBR)	387.7
5	Bechtel	370.0
6	Mustang Engineering LP	340.0
7	Foster Wheeler Ltd.	319.0
8	Parsons	227.8
9	VECO Corp.	212.5
10	URS	157.1
11	Aker Kvaerner Inc.	137.0
12	Paragon Engineering Co.	136.0
13	Fugro Inc.	131.0
14	CDI Engineering Group	124.4
15	S&B Engineers & Constructors Ltd.	117.1
16	AMEC	111.0
17	ENGlobal Corp.	92.0
18	Willbros Group Inc.	77.2
19	Gulf Interstate Engineering Co.	72.2
20	SECOR International Inc.	57.0
21	ENSR International	42.9
22	ATC Associates Inc.	40.0
23	MACTEC Inc.	34.4
24	Babcock Eagleton Inc.	29.0
25	TRC	27.3

*BASED ON 2002 DESIGN REVENUE FROM PETROLEUM AS REPORTED IN ENR'S SURVEY OF LEADING CONTRACTORS AND DESIGN FIRMS.

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The Top 25 in Refineries and Petrochemical Plants

RANK*	FIRM	\$ MIL.
1	Fluor Corp.	1,008.9
2	ABB Lummus Global	739.2
3	Jacobs	395.6
4	Bechtel	323.0
5	Foster Wheeler Ltd.	261.0
6	Parsons	227.2
7	Kallogg Brown & Root (KBR)	161.1
8	VECO Corp.	150.0
9	CDI Engineering Group	124.4
10	S&B Engineers & Constructors Ltd.	117.1
11	Aker Kvaerner Inc.	104.0
12	ENGlobal Corp.	73.6
13	Mustang Engineering LP	64.0
14	SECOR International Inc.	61.0
15	TRC	20.2
16	Wink Inc.	20.0
17	Atkins Americas	13.8
18	Black & Veatch	12.9
19	C&I Engineering	12.2
20	Paragon Engineering Cos.	12.2
21	ATC Associates Inc.	12.0
22	Fugro Inc.	12.0
23	Brinderson	10.0
24	Burns & McDonnell	9.0
25	Raymond Professional Group Inc.	8.8

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

The Top 15 in Pipelines

RANK*	FIRM	\$ MIL.
1	Willbros Group Inc.	77.2
2	Gulf Interstate Engineering Co.	72.2
3	Fluor Corp.	71.7
4	Bechtel	47.0
5	Mustang Engineering LP	44.0
6	Fugro Inc.	37.0
7	Paragon Engineering Cos.	33.1
8	AMEC	26.0
9	Babcock Eagleton Inc.	24.6
10	ENSR International	16.6
11	ENGlobal Corp.	16.4
12	Compro Cos. Inc.	13.3
13	VECO Corp.	13.0
14	Jacobs	12.4
15	Tetra Tech Inc.	11.0

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

The Top 5 in Maintenance

RANK*	FIRM	\$ MIL.
1	Foster Wheeler Ltd.	48.0
2	Fluor Corp.	13.1
3	Jacobs	12.3
4	VECO Corp.	10.0
5	Fugro Inc.	7.0

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

The Top 5 in Asbestos and Lead Abatement

RANK*	FIRM	\$ MIL.
1	ATC Associates Inc.	35.4
2	Earth Tech	11.0
3	Terracon	5.0
4	The ERM Group	4.0
5	Dowbery	4.0

The Top 5 in Nuclear Waste

RANK*	FIRM	\$ MIL.
1	Washington Group International Inc.	163.6
2	Fluor Corp.	88.0
3	Weston Solutions Inc.	33.5
4	Tetra Tech Inc.	18.0
5	AECOM Technology Corp.	18.0

*BASED ON SUPPLEMENTAL MARKET REVENUE DATA FROM 2002 PROVIDED BY PARTICIPATING INDUSTRY FIRMS ON ENR'S SOURCEBOOK MARKET SURVEY.

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June 23, 2003

Inside Energy

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"DOE plans fall opening for office focusing on cleanup-up facilities"

ENVIRONMENTAL CLEANUP

DOE plans fall opening for office focusing on cleaned-up facilities

An Energy Department office responsible for long-term surveillance of former nuclear weapons sites where radioactive waste will continue to be stored will open officially this fall, Legacy Management Director Mike Owen said last week. In addition to environmental surveillance and maintenance at about 60 sites, the office will also manage medical benefits and pensions for contractor personnel at those facilities.

"We are looking for new innovative approaches to seeing to it that the administration of the pension plans are taken care of," Owen said of the new office, which will incorporate DOE's Office of Worker and Community Transition. "Exactly what that mechanism will look like I'm not sure, but we will oversee the development of a mechanism to ensure the smooth, seamless delivery of those benefits to workers."

Over the next five years, the number of sites to be managed by the office is expected to grow to 80. The office's managers will remain within three organizations: DOE headquarters; the department's Grand Junction, Colo., office; and the National Energy Technology Laboratory in Morgantown, W.Va., and Pittsburgh. DOE has proposed a \$48-million budget for the office in FY-04. Under the new structure, Owen reports directly to Under Secretary Robert Card, not to Assistant Secretary for Environmental Management Jessie Roberson.

Long-term management of the waste involves a number of issues that Owen has broken down into two broad categories: "hard legacy" and "soft legacy." Hard legacy involves the land and facilities, "in varying conditions," that DOE has "occupied and ... will be left with to take care of," he said. Soft legacy involves contract workers. He explained that workers under DOE's management and operating contracts are entitled to "fair wages, severance packages, pensions."

There are more than 15,000 workers at three DOE sites where cleanups are expected to be done by December 2006: the Rocky Flats Environmental Technology Site in Colorado and the Fernald Environmental Management Project and the Miamisburg Environmental Management Project, both in Ohio. "We have to be cognizant of pension funds" for these employees, Owen said in an interview Monday. "The big problem will be health insurance for these people."

"This office at a point and time will assume management and control of those sites once [cleanup] is done," Owen said. He said placing responsibility for the sites with the new office once their environmental work is completed allows the overall cleanup program at DOE to focus primarily on accelerating work and reducing risks at other sites. — Shawn Terry

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July 2, 2003

Hamilton Journal-News

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"Fluor Fernald cutting jobs at cleanup-up site"

Fluor Fernald cutting jobs at clean-up site

CINCINNATI — The company overseeing the government's cleanup of radioactive wastes at a plant that processed uranium for nuclear weapons during the Cold War is eliminating more than 170 jobs, officials said Tuesday.

Fluor Fernald, the U.S. Department of Energy's cleanup contractor at the site, said it released 116 hourly employees in 16 union-covered job classifications Tuesday. The company also plans to eliminate 60 salaried jobs in 23 categories. That will reduce the work force to 1,390 salaried and hourly employees, not including subcontractors. Officials at the 1,050-acre Fernald site said the cutback of jobs is necessary as the nature of the cleanup work changes.

Fluor Fernald and the Department of Energy expect to complete the cleanup by December 2008.

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July 2, 2003

The Cincinnati Post

"Fernald losing 176 jobs"

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Fernald losing 176 jobs

Associated Press

The company overseeing the government's cleanup of radioactive wastes at a Butler County plant that processed uranium for nuclear weapons during the Cold War is eliminating 176 jobs, officials said Tuesday.

Fluor Fernald, the U.S. Department of Energy's cleanup contractor at the site, said it released 116 hourly employees in 16 union-covered job classifications Tuesday.

The company also plans to eliminate 60 salaried jobs in 23 categories. That will reduce the work force to 1,390 salaried and hourly employees, not including subcontractors. Officials at the 1,050-acre Fernald site said the cutback of jobs is necessary as the nature of the cleanup work changes.

Fluor Fernald and the Department of Energy expect to complete the cleanup by December 2006.

The Fernald plant processed uranium for the nation's nuclear weapons from 1951 until 1989. Production was halted then to focus on cleaning up radioactive wastes.

Long-term plans call for converting most of the property into a wildlife and natural area, with permanent storage of some low-level radioactive wastes there.

The more highly radioactive wastes are being taken to permanent disposal sites in Nevada and other Western states.

Publication Date: 07-02-2003

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CITIZENS USE NAS STUDY TO CHALLENGE DOE'S LONG-TERM CLEANUP PLANS

Date: May 26, 2003 -

Anti-nuclear activists and community groups plan to use a long-anticipated National Academy of Sciences (NAS) report on the Energy Department's (DOE) handling of nuclear waste to highlight their concerns that the department's contentious accelerated cleanup program will leave large volumes of waste onsite.

The groups say the April 30 NAS report, Long-Term Stewardship of DOE Legacy Waste Sites -- A Status Report, supports their contention that the department is not doing enough to properly oversee waste left onsite, and will be used as evidence in activists' efforts to lobby lawmakers for additional congressional oversight of the program. The report will also aid in future litigation challenging the reworking of cleanup agreements at various waste sites, according to one activist source.

But DOE is rejecting the criticism as inaccurate, and maintains that the department's flexible cleanup strategy is effective in dealing with long-term stewardship (LTS) for waste sites.

The report, requested by DOE's Office of Environmental Management (EM) in 2001, finds numerous flaws in the program that must be addressed to ensure protection of human health and the environment.

Specifically, the report finds that the department continues to ignore LTS issues when establishing cleanup goals and has not developed a sufficient means of implementing LTS to ensure long-term environmental and human health protection.

An anti-nuclear activist says opponents of the department's new approach will use the report to bolster their criticism of the accelerated cleanup policy. "The report validates the core criticisms by grassroots advocates," the source says. It "adds more weight" to arguments against the department's accelerated cleanup plan, the source says.

The department launched an expedited cleanup program in January 2002 as an incentive for site managers to fast-track cleanups in order to address criticisms that EM program cleanups are often too slow and ineffective. Under the program, the department will distribute a total of \$1.1 billion among site managers if they can reach cleanup agreements that accelerate cleanup completions. Critics, however, argue that a key component of these new agreements would involve leaving more wastes onsite.

Anti-nuclear groups, including the Alliance for Nuclear Accountability (ANA), will soon submit documents to Congress that lay out the type and amounts of waste to be left behind under the accelerated cleanup plan. And in the fall, ANA and other groups will issue a report on the threat to groundwater presented by these wastes.

According to a NAS source, one problem is that the department is focusing only on complying with current waste regulations, which do not provide sufficient requirements for long-term planning. "DOE is trying so hard to comply with regulations that they are

not looking down the road to what might happen in the future," the source says. "DOE needs to look at the whole picture."

"DOE is not planning yet for LTS," the NAS source says, adding that for the department the issue is "an afterthought." "We have not seen them do anything other than declare that it is an important problem," the source says.

A community source agrees, arguing that DOE needs to understand who the entities are that would do the LTS, if they have the money to do the work, and if the proposed long-term remedy complies with applicable local and state laws. Without considering these issues, the potential LTS work could be jeopardized by a lack of funds, personnel or legal authority, the source concluded.

The NAS source adds that as DOE moves toward leaving more wastes onsite, the risks posed by failures in its LTS efforts grow larger. NAS concludes in its report that "[I]f greater reliance on LTS is chosen over contaminant reduction, the consequences and in turn the risks of LTS failures may increase." The report adds that the failure of department to link LTS to cleanup increases skepticism among interested parties "that a hollow promise of stewardship is being imposed as a substitute for more costly and complete near-term cleanup."

In the report NAS recommends that the department look past current regulatory requirements, establishing a national dialogue to determine what actions are necessary to ensure that LTS becomes a central consideration in making cleanup decisions at a site. The report urges DOE to involve interested parties, including community members in the decision-making process from the start so that their concerns are addressed in choosing a remedy.

DOE should plan for problems with the remedy in making long-term decisions, considering the consequences of remedy failure and changing environmental conditions in choosing their cleanup strategy, the report says. And the department should tailor LTS monitoring to the specific risks and circumstances at a site, while developing guidance for reporting formats and record-preservation protocols, which would ensure that reliable information about each site is available over the long term.

However, DOE sources reject the criticism as inaccurate. In a May 8 presentation to a nuclear waste board at NAS, Dave Geiser, the director of the department's Office of Long-Term Stewardship, responded that the department works to establish the best available tools and resources to ensure that LTS is effective from generation to generation through a approach known as "rolling stewardship."

For example, the department already considers remedies that are flexible and develops contingency plans in the event of future failure and works with its regulators to monitor the performance of land use controls to detect problems and make modifications. And the department has led a national dialogue with other federal agencies and citizen advisory boards on LTS issues.

Source: Superfund Report via InsideEPA.com

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