



# FCAB UPDATE

*Week of December 2, 2002*  
(Last update was October 28, 2002)

## MEETING SCHEDULE

**Stewardship Committee Meeting**  
Monday, December 9, 2002, 6:30 p.m.

Trailer T-1 On Site

**Silos Roundtable**  
Tuesday, December 10, 2002, 6:30 p.m.

Room B-10, Admin Building

## ATTACHMENTS

- 11/16/02 FCAB Meeting Draft Minutes
- 11/14/02 Stewardship Committee Meeting Summary
- DOE EM Response to SSAB Chairs letter
- SSAB Transuranic Waste Management Workshop Agenda
- SSAB Groundwater Workshop Response slides
- DOE Special Projects Managers List REVISED
- EMAB Biographies
- ITRC Preliminary Results from the Survey of State Regulators' Perspectives on Technology and Implementation Issues for Long-Term Stewardship
- Articles & News Clippings

## FOR FURTHER INFORMATION

Please contact Doug Sarno or David Bidwell at The Perspectives Group  
Phone: 513-648-6478 or 703-837-9269 Fax: 513-648-4141 or 703-837-9662  
E-Mail: [djsarno@theperspectivesgroup.com](mailto:djsarno@theperspectivesgroup.com) or [dbidwell@theperspectivesgroup.com](mailto:dbidwell@theperspectivesgroup.com)  
[www.fernaldcab.org](http://www.fernaldcab.org)



**FULL BOARD MEETING**  
**Public Environmental Information Center**

**Saturday, November 16, 2002**

**DRAFT MINUTES**

The Fernald Citizens Advisory board met from 8:30 a.m. to 12:00 p.m. on Saturday, November 16, 2002, at the Crosby Township Senior Center.

**Members Present:**

Jim Bierer  
 Kathryn Brown  
 Marvin Clawson  
 Lisa Crawford  
 Steve DePoe  
 Lou Doll  
 Pam Dunn  
 Gene Jablonowski  
 Steve McCracken  
 Graham Mitchell  
 Tom Wagner  
 Gene Willeke

**Members Absent:**

French Bell  
 Lisa Blair  
 Blain Burton  
 Sandy Butterfield  
 Jane Harper  
 Robert Tabor

**Designated Federal Official:**

Gary Stegner

**The Perspectives Group Staff:**

Douglas Sarno  
 David Bidwell

**Fluor Fernald Staff:**

Sue Walpole

Approximately 10 spectators also attended the meeting, including members of the public and representatives from the Department of Energy and Fluor Fernald.

000002

### Call to Order

Jim Bierer called the meeting to order at 8:30 a.m. The Board approved the minutes from the October meeting. Jim thanked Lisa Crawford for stepping in as Chair for that meeting. Doug Sarno reviewed the meeting agenda.

### General Announcements

Steve McCracken reported that the U.S. Congress extended its continuing resolution for the FY03 budget to January 11. Jack Craig stated that it is likely that Congress will extend the resolution at least one more time. Steve explained that until the FY03 budget is approved, the Fernald site would be funded at the same level as FY02. This should not impact the site's work schedule until the end of February. When the budget is passed, the site will receive \$24 million from the accelerated cleanup fund.

Jamie Jameson told the group that several unusual accidents at the site (such as workers tripping or walking into beams) have recently resulted in a number of reportable injuries. The site has responded by rejuvenating its safety program, to which the workers have responded enthusiastically. Jamie also explained that he expects a new union contract to be approved by Christmas. The site has a new Federal coordinator, Ron Oakley. He will head up Fluor's Government Services group. Responsibilities are to "lead teams in effectively pursuing, winning and executing project for state government, U.S. federal governments and foreign governments." There is a transition time, but ultimately, Oakley report directly to Fluor's president (Jamie's immediate boss is Ron Hanson who reports to Oakley.) Jamie also noted that the site's United Way fundraising program was very successful in 2002, raising \$135,000.

Doug announced that the next SSAB workshop will be in Carlsbad, New Mexico, from January 29 to February 1. The workshop, held in a local convention facility, will focus on transportation and transuranic waste. Tours to WIPP will be conducted all day on January 30, so it is necessary to arrive on the evening of January 29. A bus will be available that evening to shuttle people from the El Paso airport to Carlsbad. Workshop sessions will be held in a local convention facility. Doug recorded a list of FCAB members interested in attending this workshop.

Doug noted that DOE recently issued a transportation manual, which captures many of the best practices discussed at the SSAB workshop hosted by the FCAB in 1999. Doug will get the FCAB members more information on how to access a copy of the manual.

Doug also stated that he would include copies of newsletters from other SSABs in regular mailings to the FCAB members.

The next SSAB Chairs meeting will be held in Denver, Colorado, on March 27 to 29. Jim cannot attend this meeting, so Tom Wagner will likely attend in his place. Gene Willeke also expressed an interest in attending this meeting.

A DOE workshop on long-term stewardship may be held in St. Louis during the first week of June. At the October SSAB Chairs Meeting, Jim offered for the FCAB to host a one-day stakeholder dialogue in conjunction with this workshop. Jim stated that Chairs from other sites expressed interest in attending a dialogue. Stakeholders from sites that do not have SSABs should also be involved. The FCAB briefly discussed the benefits of holding a dialogue preceding or following the DOE workshop.

Steve DePoe announced that Fernald Living History, Inc. is having a meeting on December 2. He explained that the role of the organization in long-term stewardship of

SSAB

the Fernald site would be discussed and invited all FCAB members to attend. He also noted that Jim Innis would be a guest speaker.

Lisa Crawford announced that she is working on a paper to be presented at the NCARP conference in Washington, DC, in May. She will provide the group with more information regarding her paper and this event at a future meeting.

Doug announced that the Utah waste tax initiative was defeated in the November election, by a margin of two to one.

#### **Report from October SSAB Chairs Meeting**

Jim Bierer and Katie Brown attended the SSAB Chairs meeting held in October in Knoxville, Tennessee. Jim announced that each site shared successes they have experienced, in addition to major issues being addressed by the SSABs. Jessie Roberson was the lunchtime speaker on Friday, and reiterated her commitment to accelerated risk reduction. The Chairs provided Roberson with a letter that was discussed at the Cincinnati Chairs meeting earlier in the year, offering SSAB assistance as DOE addresses national Environmental Management issues.

Jim reported that Roberson also mentioned that the new EM Advisory Board would have a subcommittee on long-term stewardship. Katie explained that five members have been named to the EMAB, including Tom Winston from Ohio EPA. Graham Mitchell said that the EMAB would be meeting for the first time the following week. Lisa stated that the FCAB should have been notified that the members of the EMAB were named; however, Jack Craig stated that he was not certain that the EMAB membership was official. Jim Bierer asked that the FCAB members be provided with minutes from EMAB meetings and copies of their recommendations.

Jim reported that a presentation on groundwater cleanup was given at the meeting, in response to the recommendations developed at the SSAB workshop in Augusta this past winter. DOE is working on a groundwater database, which would provide information to the public regarding every plume and source in the DOE complex. Pam Dunn stated that DOE should respond in writing to the SSAB groundwater recommendations, and distribute their response to everyone who attended that workshop. Graham Mitchell urged caution regarding how risk-based cleanup is framed, because some interests could claim that on-site containment eliminates human health risk. Gene Willeke stated that DOE should consider ecological risk in addition to human health risk.

Jim noted that attendees requested that DOE provide a list of managers for its special projects, which arose from the Top-to-Bottom Review process. This list was provided in the last FCAB mailing, but will be updated to include email addresses for these managers.

Katie provided the group with her impressions of the Chairs meeting, since it was the first she had attended. She was taken by the reported absence of involvement by regulators and site contractors in the activities of other SSABs. Katie felt that there was a veil of secrecy at other sites, but that SSAB members at other sites seemed complacent to the marginalization of stakeholders. Katie cited conflict at the Paducah site as an example. The group briefly discussed the need for the public to be actively engaged in decision-making at DOE remediation sites and for regulators to be involved in SSAB activities. Members suggested that project managers from different EPA regions discuss their interactions with SSABs.

Jim also shared his impression that other sites are looking to the FCAB to become a leader in addressing long-term stewardship issues.

#### **FCAB Closure Mission**

Doug reviewed a draft FCAB site closure mission statement. This statement was developed based on discussions at the FCAB retreat in September, in order to elucidate what should be accomplished before the end of the FCAB. The members provided a number of specific comments regarding the mission statement. Doug and David Bidwell will make the suggested changes and make the statement consistent with the recently completed feasibility study report. Another draft will be distributed to the group and considered for approval at the January meeting.

#### **Silos Project Update and Planning for Upcoming Roundtable**

Ray Corradi provided an update of the silos projects. Ray reported that this winter the Accelerated Waste Retrieval (AWR) storage tank area will be sealed with a concrete roof. These tanks will be used to hold materials sluiced from Silos 1 and 2. The Radon Control System is mechanically complete, and is currently being reviewed by teams from Fluor and DOE Headquarters to make sure the constructed system is ready for operation. The regulatory milestone for hot-testing the system was moved back from November 1 to December 16, so the site can better assess the readiness of the system. Ray explained that the Critical Analysis Team (CAT) was involved in the design process, but has not been involved in the readiness review. FCAB members encouraged Ray to keep the CAT informed of all activities concerning the silos. Lisa Crawford stated that the community should be provided notice prior to the initial operation of the Radon Control System. Ray noted that there is a virtual tour of the AWR area on the Fernald web site.

Ray explained that operation of the sluicing system for Silos 1 and 2 will require bridges to be built over the silo domes. Foundations for these structures will be built into the earthen berms around the silos. A Silos Penetration and Risers Plan has been sent to EPA for review. In March or April 2003, holes will be cut into the Silos 1 and 2 domes to add the sluicing mechanisms. The Radon Control System should be operating at this time, in order to reduce worker exposure to radon. This construction activity will be demonstrated first on Silo 4, which is empty. Sluicing materials from Silos 1 and 2 to the AWR tanks is scheduled to begin in May 2004. Ray also reported that there is a Fluor team working on a plan for removing heels from the silos, shut down of the silos project, and transition of the silos to the D&D project.

Steve McCracken explained that pressure release valves have been installed in the domes of Silos 1 and 2. If needed, these valves would allow pressure to equalize in the silos during the sluicing operation. Ray stated that the sluicing will be conducted within tight controls to reduce the risk of significant pressure changes inside the silos. However, there is still a chance that there will be a release of radon through these valves. Per design calculations, a release would not result in a significant elevation of radon levels at fence line. Any significant release of radon would be reported.

Issues related to the AWR will be discussed at a roundtable to be held on December 10 at 6:30 p.m. in B10 at the site. All community members are invited to attend this event. Fluor will provide pizza at 6:00. Preliminary information will be sent to the FCAB prior to the roundtable. FCAB members asked that information be presented in an easy to understand format, in addition to more detailed, technical information. They also asked that members of the CAT be invited to the roundtable.

Ray further explained that other construction has begun at the silos site. Excavations are underway for the foundation for a warehouse that will support all silos project activities. Contaminated soils and perched water have been removed and sent to the appropriate on-site area for disposal or treatment. Concrete will be poured for the foundation before the end of the year. Ray agreed to provide Gene Willeke with the design documents for treatment of Silos 1 and 2 materials.

Ray stated that work on Silo 3 would be slowed if the continuing resolution for funding is extended beyond February. The footprint for the Silo 3 materials handling area has been marked out, and concrete has been cut away in the area to allow soil excavation to begin. Contaminated soils are being placed in the OSDF. The design for this facility is complete, and subcontract packages are being assembled. Construction of this handling facility should be completed in November 2003. Jacobs Engineering has been asked to design a materials conditioning mechanism that could be added to the bag filling station. Ray reported that the CAT is interested in seeing designs for the vacuum wand that will be used to remove the Silo 3 material and the packaging station. Fluor is working with vendors to assemble prototypes for these mechanisms. A mockup of the reinforcement that will be placed around the opening in the Silo 3 wall has been constructed on Silo 4. The site has purchased an excavator and will be working out a detailed implementation plan for cutting the opening into the silo wall. Under the current schedule, removal of materials from Silo 3 would begin in late spring or early summer of 2004.

Lisa reminded the site personnel that the silos are the most critical project at the site, and that they get more attention than anything else. It is very important to keep the public informed of everything that happens regarding the silos. Steve acknowledged that the public needs to know about potential incidents and anticipated impacts of this project, so everyone knows what to expect.

Doug announced that the request to dispose of Silos 1 and 2 waste in Envirocare's 11e(2) cell was sent back to DOE by NRC, saying NRC does not have jurisdiction over waste produced prior to 1978. He stated that this means the designation of this waste as eligible for the 11e(2) cell is likely.

### **Project Update Sheets**

Doug reviewed new update sheets for the Closure Toolbox. These sheets provide up-to-date information on each of the site's project areas. Doug asked the FCAB members to review the sheets and provide feedback on the sheets' format and level of detail. The group briefly discussed the content of some of the updates. Main discussion points are listed below:

- Waste pit materials are dried to meet requirements for placement at Envirocare. The site is investigating the possibility of shipping waste with higher moisture content during the summer.
- Cells 4 and 5 of the OSDF have been lined and are ready to receive waste. Layers of material will be placed over the liners before winter. If three feet of impacted material is in the cells before an extended freeze, transite can be moved into the cell before the end of the year.
- Approximately fifty percent of the structures on the site have been taken down.
- Two new injection wells have been installed by the aquifer project and should be operating soon. Due to changes in the configuration of the plume and remediation goals, it is difficult to create a map that shows the progress made by

this project. FCAB members suggested providing the amount of uranium that has been removed during groundwater treatment.

- Nearly every waste stream from the site has a designated location for final disposition.

Doug also provided the group with the fact sheet for the OU1 ESD. This will allow some waste streams to be sent to Envirocare.

### **Long-Term Stewardship**

Doug announced that the public access to records feasibility study report is complete and has been submitted to the DOE Office of Long-Term Stewardship. Doug stated that the report is a product of the Future of Fernald process to date and thanked everyone for his and her input throughout the feasibility study process. Copies were available for each FCAB member. Doug also noted that the report is available on the FCAB web site, and that copies on CD-ROM could be available by request. Board members suggested people and organizations to whom the report should be distributed, including elected officials, other SSABs and stakeholder organizations, and public and university libraries. Lisa Crawford, Pam Dunn, Jim Bierer, and Tom Wagner agreed to meet with editorial boards for local newspapers.

Doug suggested that the FCAB formally transmit the recommended actions from the report to DOE as formal recommendations. The group formally approved the recommendations and asked that they be sent Steve McCracken.

The group also received copies of the draft Comprehensive Stewardship Plan for the site. A stewardship plan must be submitted to DOE Headquarters by January 31, 2002. Doug explained that there is not a formal comment period for the document at this time, but the site has asked for FCAB input. A special Stewardship Committee meeting will be held on December 9 to discuss the plan. The meeting will be held at 6:30 p.m. in T-1 at the site. Doug and David will provide the Board members with a summary of the plan's key points prior to the meeting. Pam requested that a copy of cost estimates for stewardship activities be provided to the FCAB prior to the meeting. Steve McCracken explained that this plan will be a living document, which will become more specific over time. Steve also noted that the DOE commitment to restored areas of the site has not been clarified. Steve planned to meet with Dave Geiser from the DOE Office of Long-Term Stewardship the following week, in order to discuss this issue. Steve suggested reviewing the Response to Comment for the Weldon Spring stewardship plan to see what commitments DOE made at that site.

Doug reported that at its meeting earlier in the week, the Stewardship Committee had discussed the potential Natural Resources Damages settlement between DOE and the State of Ohio. Doug explained that settlement of this lawsuit could have a major impact on what happens at the site after closure, because it will impact DOE's commitment to the restored areas and could result in funds that could be used for community education. At the Stewardship Committee meeting, it became clear that DOE and the State are not close to settlement, due to disagreements over the longevity of DOE's commitment to the restored areas. Graham Mitchell explained that the Ohio Attorney General's office and DOE counsel are involved in the negotiations. He stated that it might be beneficial for the public to push the parties towards reaching some kind of settlement. Board members stated that they would like more information regarding the parties' positions before making a specific recommendation. The Board agreed to submit a letter to DOE and the State, asking for clarification on their positions and explaining that a settlement

is needed to provide clarity regarding post-closure plans for the site. The letter will invite the parties to attend the February meeting of the Stewardship Committee.

Doug explained that recently some members of the Board have suggested using an OU6 Record of Decision, as outlined in the site Consent Agreement, to formalize long-term stewardship commitments. Through subsequent investigation, however, it appears that the requirement for OU6 was stricken from the Federal Facilities Agreement in 1996 because its original intent had been met by other operable units. Staff at the site is looking for other opportunities to create a legal document to outline DOE stewardship obligations.

#### **Other Issues**

Doug explained that the date of the FCAB meeting for January fell on a holiday weekend. The January FCAB meeting will be rescheduled for Wednesday, January 15, starting at 6:00 p.m. Jim Bierer noted that attendance of Saturday meetings has been poor and observed that the next three meetings will be held on weekday evenings. He suggested that the FCAB consider moving all of its meetings to weekday evenings, to avoid the weekend schedule conflicts that have prevented members from attending meetings.

Jim also explained that a Stewardship Toolbox, similar to the Closure Toolbox, had been suggested at the Stewardship Committee meeting. This toolbox would contain materials that are relevant to long-term stewardship planning at the site. Proposed contents of a Stewardship Toolbox will be distributed to the FCAB in the next mailing.

#### **Public Involvement**

There were no comments from the public.

The roundtable to discuss the AWR system for Silos 1 and 2 will be held on Tuesday, December 10 at 6:30 in B-10 (pizza will be available at 6:00). The next FCAB meeting will be held on Wednesday, January 15 at 6:00 p.m. at the Crosby Township Senior Center.

I certify that these minutes are an accurate account of the November 16, 2002 meeting of the Fernald Citizens Advisory Board.

\_\_\_\_\_  
James Bierer Date  
Fernald Citizens Advisory Board Chairman

\_\_\_\_\_  
Gary Stegner Date  
Deputy Designated Federal Official



# MEETING SUMMARY

**Date:** November 14, 2002

**Topics:**

- Report from the Post-Closure Public Access to Information Feasibility Study
- DOE Grand Junction Office as Long-Term Steward of Fernald
- Status of the Natural Resources Damages Settlement
- Fernald Comprehensive Stewardship Plan

**Attendees:**

**Fernald Citizens Advisory Board**

Jim Bierer  
 Marvin Clawson  
 Pam Dunn  
 Steve DePoe  
 Bob Tabor

**FRESH**

Carol Schroer  
 Edwa Yocum

**The Perspectives Group**

Doug Sarno  
 David Bidwell

**U.S. Department of Energy**

Ed Skintik  
 Gary Stegner  
 Anne Wickham  
 Art Kleinrath  
 Jay Jalovec

**U.S. Department of Environmental Protection**

Gene Jablonoski

**Ohio Environmental Protection Agency**

Donna Bohannon  
 Tom Schneider

**Fluor Fernald**

Joe Shomaker  
 Rick Strobl  
 Jeff Wagner  
 Sue Walpole  
 Eric Woods  
 Pete Yerace

**Others**

Mark Plessinger  
 Jim Innis

000009

## Feasibility Study Report

Doug Sarno opened the meeting and reviewed the agenda. Doug distributed copies of the completed report for the feasibility study on post-closure public access to site information. David Bidwell provided the group with an overview of the report, highlighting the following points:

- The report distinguishes three types of information management needs for DOE closure sites—management of official DOE records, preparation of information needed to carry out stewardship activities, and development of public information resources. The public has specific information needs that are unique to other information management needs.
- The public needs information to ensure continued protection of human health and the environment, as well as to maintain a community memory of the site's history. Specific information needs of the Fernald community are included in the report.
- The report recommends actions that should be taken by DOE at a site-specific and a national level. At the site level, DOE should provide information in easy-to-understand formats and develop a means to maintain a high degree of community awareness. At a national level, DOE must develop a clear path for the public to access in-depth information.

Doug explained that the FCAB will consider submitting the recommendations in the report as formal recommendations to Steve McCracken. He also noted that the report is available on the FCAB web site. David added that additional information regarding this topic and links to relevant web sites are available on the FCAB web site.

## DOE Grand Junction Office and Long-Term Stewardship at Fernald

Doug explained that DOE Headquarters has determined that the DOE Grand Junction Office will act as the post-closure steward of Fernald. The Grand Junction Office is currently the functional arm of the Office of Long-Term Stewardship. Doug noted that the DOE plans to move the Office of Long-Term Stewardship from Environmental Management to Worker and Community Transition. Doug introduced Art Kleinrath, who works for DOE at Grand Junction, and Mark Plessinger, who is employed by the main contractor for the office.

Art distributed handouts and reviewed the role of the Grand Junction Office and its Long-Term Surveillance and Monitoring (LTSM) program. The LTSM program currently manages thirty-three sites around the country, many of which include disposal cells. Art stated that the Grand Junction Office was formed because of its central location for LTSM sites at the time, which mostly included mine tailing sites in the West. LTSM staff does not write stewardship plans for DOE sites, but they like to be involved early on so they know what to expect before a site is transferred to their management. Art explained that there are three basic phases in planning for long-term stewardship: 1) a site-specific stewardship plan is developed, 2) a transition plan is developed, and 3) the site is transferred to the Grand Junction Office. There are a number of options that the LTSM program uses to carry out its responsibility to implement site stewardship plans, including having an on-site DOE presence, occasional DOE site visits, hiring local contractors, or a combination of these approaches. Art noted that the management strategy is determined on a case-by-case basis.

Art also discussed the role of the Grand Junction Office in information management, which includes making information retrievable and useful for stewardship purposes. He stated that information management is one of the greatest challenges facing the LTSM program. The group briefly discussed information management technologies, and Art noted that Grand Junction has a searchable database of site records on its web site. Mark explained that the LTSM program is primarily concerned with managing a set of records focused on how the remedy was implanted at the site and how the disposal cell was constructed. A full set of site records is not needed. Mark cited a couple of examples where design documents were needed to address problems that arose at disposal cells. He noted that an on-site education center would probably be able to store the records needed for long-term stewardship. Art noted that the Grand Junction Office has been scanning the Weldon

Spring administrative record, so it will be available in an electronic format. He explained that the Grand Junction Office is learning as it goes, particularly as it assumes responsibility for larger sites. Fernald will be the largest site managed by the office when it is transferred. Art encouraged the group to include provisions for how the public will access information in the site's long-term stewardship plan.

The group discussed how long-term stewardship activities are funded, particularly during a site's transition to stewardship. Mark explained that the Grand Junction Office projects its annual funding request based on the sites that are in the LTSM program. Anne Wickham explained that Fernald will not enter the LTSM budget until FY2004 and that the funding Grand Junction receives for Fernald will be narrow in scope at that time. She stated that she is currently working on projections for what post-closure funding requirements will be and should have some estimates by the end of November. Mark noted that the DOE Site Transition Framework will benefit this planning process, because sites must identify budget and workforce requirements for the transition to stewardship.

Art explained that the Grand Junction Office role at Fernald will evolve over time, from an advisory role to managing stewardship. It is likely that Grand Junction will assume some responsibilities at Fernald while cleanup projects are still being completed. Art noted that it is important to budget for these transition activities, even if cost estimates are not precise. Doug noted that there will be three components to long-term stewardship at Fernald: 1) management of the remedy and maintaining controls, 2) maintaining the integrity of the ecological restoration, and 3) providing information to public. The Grand Junction Office will definitely be responsible for the first component, but it is not clear who will be responsible for the other two.

Pam Dunn asked Doug Sarno to assemble a packet of information about the FCAB and its recommendations for the Grand Junction Office.

#### **Natural Resource Damages Settlement**

Doug noted that the FCAB is interested in the potential Natural Resource Damages (NRD) settlement between DOE and the State of Ohio, because it could result in funds that could be used towards community education during long-term stewardship. At the FCAB meeting in October, the group discussed the possibility of submitting a letter that supports settlement. Doug asked how the Board could help move the parties towards some resolution, to provide clarity for stewardship planning.

Committee members stated that they would like to receive more information from DOE and the State regarding their positions on the issue. Tom Schneider and Pete explained that the primary obstacle to settlement is a disagreement regarding the long-term obligation that DOE has to maintain the ecological restoration of the site. Pete Yerace stated that, as a Natural Resources Trustee, he believes a statement from the FCAB regarding restoration of the site and future obligations for maintaining restoration projects could be helpful in resolving differences between the parties.

The group discussed the importance of ensuring that any monetary settlements are used for specific purposes at the site. Tom stated that state funds can be earmarked for specific uses.

#### **Comprehensive Stewardship Plan**

A copy of the draft Comprehensive Stewardship Plan was distributed to each Committee member. This document will be discussed in depth at a special Monday, December 9, Stewardship Committee meeting. The meeting will be held at 6:30 in T-1 at the site.

Eric explained that the structure of the plan has not changed from earlier drafts and still addresses the OSDF and the restored areas. The plan conforms to guidance provided by DOE Headquarters. He also explained that a preliminary cost estimate is still being reviewed but will be added to the plan. Gary Stegner noted that this is a basic document, which will become more detailed over time. Rather than having a formal comment period, at this time DOE is encouraging a public discussion about the plan.

**Stewardship Toolbox**

Doug proposed developing a binder, similar to the Closure Toolbox developed for the FCAB, which would include important documents and updates regarding long-term stewardship issues. He provided the group with a draft outline of its contents and asked them to provide input.

The meeting was adjourned at 8:30 p.m.

**000012**

4622

**Department of Energy**

Washington, DC 20585

November 18, 2002

Mr. James Bierer  
Fernald Citizens Advisory Board  
P.O. Box 538704, MS 76  
Cincinnati, Ohio 45253-8704

Dear Mr. Bierer:

Thank you for your October 16, 2002, letter inquiring how the local Environmental Management (EM) Site-Specific Advisory Boards (SSABs) can help EM address common, complex-wide issues. The board's advice, recommendations and in-depth site-level perspective can be of great assistance to us in resolving issues at the site, including those that may be crosscutting to the EM complex.

The objectives of the EM program are to accelerate risk reduction and closure. I expect the board to provide us with timely advice and recommendations to assist in furthering these goals. I ask that each SSAB work closely with the respective site manager in developing SSAB work plans and meeting agendas. This will facilitate the SSAB's ability to provide us with useful recommendations on issues important to accelerating cleanup.

As common, complex-wide issues are identified, SSAB workshops such as those previously conducted on low-level and mixed-waste, transportation, long-term stewardship and groundwater, can be of assistance in helping address such issues. I am pleased that such a workshop on transuranic wastes is scheduled for early next year in Carlsbad, New Mexico. As discussed at the recent SSABs Chairs meeting, possible topics for future workshops include information management for long-term stewardship and the transition from cleanup to closure.

Thank you for offering your assistance in addressing the challenges of accelerated cleanup. If you have any questions, please contact me at (202) 586-7709 or Ms. Martha Crosland, Director, Office of Intergovernmental and Public Accountability, at (202) 586-5944.

Sincerely,

A handwritten signature in black ink, appearing to read "Jessie Hill Roberson".

Jessie Hill Roberson  
Assistant Secretary for  
Environmental Management

000013



U.S. Department of Energy  
Environmental Management Site Specific Advisory Board

**Workshop on Transuranic Waste Management**

**January 29 through February 1, 2003  
Carlsbad, New Mexico**

**Wednesday, January 29, 2003**

**Pecos River Village Conference Center**

**Early Bird Registration**

**1:00 p.m. - 7:00 p.m.**

**Thursday, January 30, 2003**

**Waste Isolation Pilot Plant**

**Tour of the Waste Isolation Pilot Plant**

**8:00 a.m. - 11:00 a.m.**

**Lunch in WIPP Cafeteria**

**11:00 a.m. - 12:00 noon**

**Tour of the Waste Isolation Pilot Plant**

**12:00 noon - 3:00 p.m.**

**Note: The tour will consist of a briefing on the mission, history, operations, and issues regarding WIPP, and a tour of above-ground facilities; and a briefing and tour of underground facilities. It has been suggested that individual SSABs could also make presentations on site-specific issues during the above-ground discussions.**

**Thursday, January 30, 2003**

**Pecos River Village Conference Center**

**Registration**

**1:00 p.m. - 6:00 p.m.**

**Thursday, January 30, 2003**

**Living Desert Museum**

**Reception**

**6:00 p.m. - 8:00 p.m.**

**Informal Remarks by Dignitaries**

**Friday, January 31, 2003**

**Pecos River Village Conference Center**

**Registration and Continental Breakfast**

**7:00 a.m. - 8:30 a.m.**

**Welcome and Introductions**

**8:30 a.m. - 9:00 a.m.**

**Jim Brannon, Chair, NNM CAB  
Mayor, City of Carlsbad  
U.S. DOE Designee  
Martha Crosland, DFO  
Dr. Ines Triay, Manager, CBFO**

**EM SSAB Transuranic Waste Management Workshop**

-2-

**Introductory Presentations**

9:00 a.m. - 10:00 a.m.

- DOE Headquarters (15 min.)
- DOE CBFO (45 min.)

**Break**

10:00 a.m. - 10:15 a.m.

**Round Robin Reports from SSAB Chairs on Site-Specific Transuranic Waste Issues and Concerns**

10:15 a.m. - 11:30 a.m.

(Four slides, 8 minutes per SSAB--one background slide, three issues slides, using template provided)

**Plenary Session Discussion of Issues and Core Topics**

11:30 a.m. - 12:00 noon

**Lunch**

12:00 p.m. - 1:00 p.m.

**Plenary Session Identification of Core Topics For Breakout Sessions**

1:00 p.m. - 1:30 p.m.

Note: Suggested Core Topics are

1. Regulatory: WIPP-Certification, State Permitting
2. Transportation and Outreach: Trucks, Containers, Training, Priorities, Stakeholder Involvement
3. Waste Characterization, Treatment, and Packaging
4. Management: National Strategy, Scheduling, Planning, Costs, Logistics

**Individual SSAB Discussion of Core Topics**

1:30 p.m. - 2:00 p.m.

Note: During this session, each SSAB will assign members to Core Topic Breakout Groups and at their discretion identify key sub-issues.

**Core Topic Breakout Sessions**

2:00 p.m. - 3:30 p.m.

**Break (informal)**

3:30 p.m. - 3:45 p.m.

**Core Topic Breakout Sessions (continued)**

3:45 p.m. - 4:30 p.m.

**Plenary Session: Reports and Draft Recommendations from Breakout Sessions**

4:30 p.m. - 5:30 p.m.

**EM SSAB Transuranic Waste Management Workshop**

-3-

**Recess** 5:30 p.m.

**Friday, January 31, 2003**

**Dinner on Your Own and Pecos River Boat Tour** 6:00 p.m.

**Saturday, February 1, 2003**

**Pecos River Village Conference Center**

**Continental Breakfast** 7:00 a.m. - 8:00 a.m.

**Plenary Session: Summary of Friday Session** 8:00 a.m. - 8:30 a.m.

**Core Topic Breakout Sessions, continued** 8:30 a.m. - 10:30 a.m.

**Break** 10:30 a.m. - 10:45 a.m.

**Plenary Session: Breakout Session Final Reports** 10:45 a.m. - 11:45 a.m.

**Plenary Session: Consideration of Recommendations** 11:45 a.m. - 12:45 p.m.

**Closing Remarks** 12:45 p.m. - 1:00 p.m.

**Adjourn** 1:00 p.m.

**NOTE: All times are Mountain Standard Time.**

**DRAFT: November 19, 2002**

Department of Energy  
 Response to the  
 Site Specific Advisory Boards  
 Ground Water Issues and Concerns  
 Knoxville, TN  
 October 18, 2002

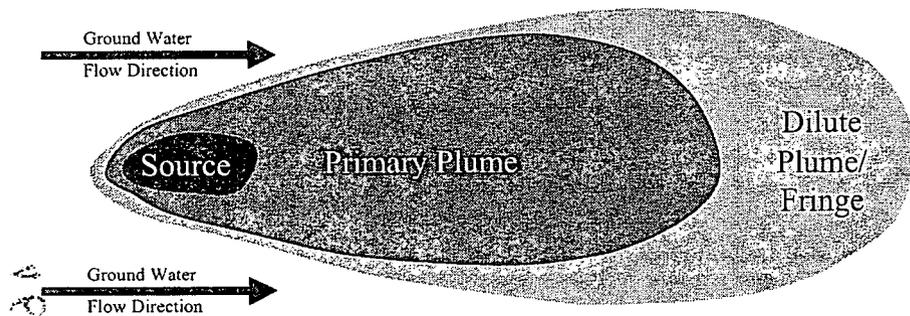
Blaine Rowley, DOE/HQ



Roles and Responsibilities

- Stakeholders
- DOE/HQ
- DOE/Field
- Contractors
- Regulators

Ground Water Management Strategy



Contaminant Source Reduction Technologies

Pump & Treat, Thermal, Chemical, Flushing, Bioremediation, Soil Vapor Extraction, Capping, Grouting

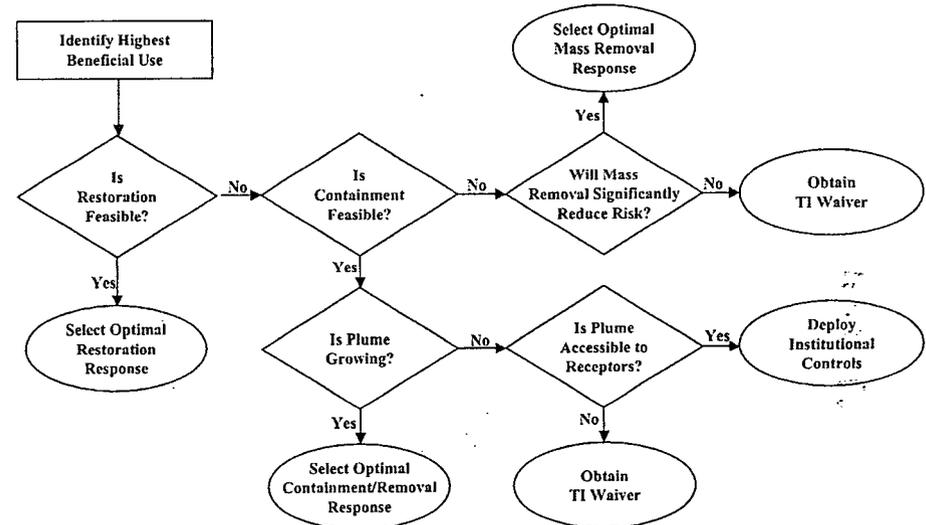
Primary Plume Remediation Technologies

Pump & Treat, Barrier Walls, Bioremediation, Chemical, Phytoremediation, Air Sparging, Recirculation

Dilute Plume/Fringe Restoration Technologies

Monitored Natural Attenuation, Mixing Zones, Natural Flushing, Phytoremediation, Venting

Decision Logic



## Public and Regulatory Involvement

4622

- The Core/Project Team Approach
- Guidance
- Training
- Meetings and Workshops
- Ground Water Database

5

## Ground Water Database

000018

- General Information
- Contaminants
- Sources
- Remedial Approaches
- Hydrogeology
- Ground Water Uses
- Exit Strategies
- Ground Water Environmental Indicator
- Long-term Stewardship
- Comments

6

## MNA Requirements

- Contamination does not pose unacceptable risks
- No active source term
- Plume is not increasing in size or data suggests attenuation mechanisms exist
- Remedial timeframe compatible with future use and reasonable compared to other alternatives
- Evaluated/compared to other remedial alternatives

4622

7

## Technology and Research

- Environmental Management Science Program (EMSP)
- Interstate Technology Regulatory Council (ITRC)
- Federal Remediation Technologies Roundtable (FRTR)
- Interagency DNAPL (dense non-aqueous phase liquids) Consortium

000018

8

## Stewardship

- Draft Long-term Stewardship Strategic Plan
- Draft Long-term Stewardship Roadmap
- CERCLA Five-Year Review
- Transition/Exit Strategies
- Monitoring Consortium

9

## References

- Environmental Management Science Program
  - <http://emsp.em.doe.gov/>
- Interstate Technology Regulatory Council
  - <http://www.itrcweb.org/common/default.asp>
- Federal Remediation Technologies Roundtable
  - <http://www.frtr.gov/>
- Interagency DNAPL Consortium
  - <http://www.getf.org/dnaplguest/>
- MNA Guidance
  - <http://www.em.doe.gov/framework/>
  - <http://www.em.doe.gov/techguide/>
- Guidance for Optimizing Ground Water Response Actions at Department of Energy Sites
  - [http://www.em.doe.gov/er/May2002gwguide1\\_508.pdf](http://www.em.doe.gov/er/May2002gwguide1_508.pdf)
- CERCLA Five-Year Review Guidance
  - [http://www.em.doe.gov/er/Five\\_Year\\_Review\\_508.pdf](http://www.em.doe.gov/er/Five_Year_Review_508.pdf)

10

## DOE SPECIAL PROJECTS MANAGERS LIST

PROJECT	MANAGER	PHONE	FAX	EMAIL
Getting more performance from Performance Based Contracts	Dan Jr, Charles A.	303-966-8485	303-966-5071	Charlie.dan@rf.doe.gov
Managing Waste to reduce risk (other than SNF & HLW)	Knerr, Reinhard M.	505-234-7374	505-234-7061	Reinhard.knerr@wipp.ws
Tips on Telephone Communications, Focusing EM program resources on cleanup	Weis, Michael J.	TTY: 301-829-2255  301-903-7102	301-903-7165	Michael.weis@hq.doe.gov
Managing waste to reduce risk - SNF	Gelles, Christine M.	301-903-1669	301-903-4303	Christine.gelles@em.doe.gov
Managing waste to reduce risk - HLW	Case, Joel T.	208-526-6795	208-526-0553	casejt@id.doe.gov
Safeguards and security: Reducing the threat at EM sites	McCormick, Matthew	509-376-3024	509-373-0726	Matthew_s_mccormick@rl.gov
Long-Term stewardship for protection of public health and the environment	Geiser, David W.	202-586-9280	202-586-1241	David.geiser@em.doe.gov
Integrated program for accelerated cleanup of small sites	Anderson, Cynthia	803-725-3966		Cynthia.Anderson@srs.gov
Packaging and transportation to support accelerated risk reduction	Sheppard Jr, Franklin	301-903-4982	301-903-4303	Frank.Sheppard@em.doe.gov
EM business center	Anderson, Paul E.	803-725-5607	803-725-7565	Paul.Anderson@srs.gov

**JAMES A. AJELLO**

(Chair, Environmental Management Advisory Board)

Mr. Ajello is President of Reliant Energy Solutions of Houston, Texas, a position he has held since 2000. Reliant Energy Solutions is a subsidiary of Reliant Energy, a \$38 billion energy utility. This business has over \$1 billion in annual revenues, a staff of 150 and provides customized, integrated energy solutions, including commodity, capital, e-commerce, and risk management, as well as demand side energy services, to large commercial, industrial and institutional clients. This business was loss-making in 2000 and is now one of the most profitable business units of Reliant Energy.

From 1998 through 2000, Mr. Ajello was Vice President, Downstream Organization, for Enron Corporation (North America). He was responsible for business development in the chemicals/plastics, refining, fertilizers, industrial gases and metals sectors in North America. As Group Head, he supervised a team of 35; his duties included managing the integrated delivery of products in risk management, finance and energy asset development (outsourcing).

From 1995 - 1998, Mr. Ajello was Managing Director, Energy and Natural Resources Group, for Warburg Dillon Read/UBS Securities LLC. He was responsible for corporate finance, advisory products, equity and debt issuance, underwriting products, and relationship management. His primary organization and execution responsibility was for selected oil and gas exploration and production companies, pipelines and mining companies in North America. He was co-manager and developer of a 20-person group.

From 1993 - 1995, Mr. Ajello was Senior Banker/Managing Director, Business Development/Corporate Finance Group, for UBS Securities, Inc. He was responsible for corporate finance, advisory and underwriting products for UBS' most important client base in the Midwest. He was relationship manager coordinating all UBS products.

From 1989 - 1993, Mr. Ajello was Branch Manager and Managing Director for the Union Bank of Switzerland. He was responsible for UBS business in 16 states in the Midwest, managed a staff of 50 people, and maintained core banking relationships providing corporate finance, advisory, and underwriting products. He developed the most profitable (per capita) office of UBS in North America.

From 1984 - 1989, Mr. Ajello was Managing Director and Head - Project Finance, for the Union Bank of Switzerland. He managed a staff of 15 professionals and was responsible for advising clients on and arranging capital for

large infrastructure projects in mining, power, oil and gas, chemicals, refining and pipelines. He was successful at migrating the business to a leadership position, focusing on advisory and capital market products.

From 1980 - 1984, Mr. Ajello was a Project Manager for the U.S. Synthetic Fuels Corporation. He was responsible for managing a team (finance, legal, engineering, environmental) providing financial incentives to accelerate the development of alternative fuels to lessen dependence on imported sources of petroleum. He successfully completed world scale projects, negotiating financial incentives exceeding \$3 billion with Exxon, Tosco, Unocal, Texaco, Tenneco, Panhandle, et al.

From 1976 - 1980, Mr. Ajello worked at the Department of Energy with various duties and assignments including: (a) the Presidentially-directed study of the 1000 megawatt Davis Hydroelectric Project; (b) a one year assignment at the Strategic Petroleum Reserve in New Orleans to negotiate oil acquisitions from industry majors and Mexico; (c) negotiated oil supply and operating arrangements for the Elk Hills, CA Naval Petroleum Reserve; (d) management intern to Admiral Hyman Rickover (father of the Nuclear Navy) in finance contracts working with GE on the Trident Submarine Program.

Mr. Ajello earned a BA degree (cum laude) from the State University of New York, an MPA/MBA (summa cum laude) from Syracuse University, and attended the Advanced Management Program of the European Institute of Business Administration (INSEAD) at Fontainebleau, France.

American project finance team. Including previous work at the U.S. Synthetic Fuels Corporation, a quasi-governmental organization created by Congress, Mr. Ajello has over 20 years of finance and management experience in the chemicals, refining, energy, and natural resources sectors.

**DR. RAYMOND LOEHR****Environmental and Water Resources Engineering Program  
University of Texas**

Professor Loehr's teaching and research interests emphasize hazardous and industrial waste management, and land as a waste management alternative. His current research activities relate to development and use of hazardous waste management technologies for contaminated liquids, slurries, solids and soils. Specific research involves the bioremediation, transport and fate of constituents when wastes are treated by hazardous and industrial waste management processes. He has produced over 300 technical publications and reports relating to municipal and industrial waste management and authored or edited 14 books.

In addition to his academic background, Dr. Loehr has been a scientific advisor to U.S. EPA and the Department of Defense for many years and has also been actively involved with the National Academy of Sciences, the National Academy of Engineering and National Research Council Committees.

Dr. Loehr's applied policy experience is highlighted by his participation on a number of the Environmental Protection Agency's Science Advisory Board Committees, including 15 years of service on the Executive Committee, 2 years of service on the Research Strategies Advisory Committee, 6 years of service on the Environmental Engineering Committee, 2 years of service on the Groundwater Research Review Committee, 2 years of service on the Technology Assessment and Pollution Control Advisory Committee, and one year of service on the Hazard Ranking System Review Committee. In addition to this Committee work, Dr. Loehr was the author/co-editor of the EPA's "Reducing Risk: Setting Priorities and Strategies for Environmental Protection," SAB-EC-90-021, published in September 1990. He also served as Chair of the Expert Panel on the Role of Science at EPA and was the author/editor of "Safeguarding the Future: Credible Science, Credible Decisions," EPA/600/9-91/050, published in March 1992.

In addition to his extensive committee work at the EPA, Dr. Loehr has participated on committees at the National Academy of Science, the National Academy of Engineering, and the National Research Council. Highlights of his work include serving on the Committee on Remediation of PCB -Contaminated Sediments, from 1999-2001 and on the Board on Environmental Science and Toxicology from 1995-1998.

Finally, from 1995-2000, Dr. Loehr served on the Department of Defense's Scientific Advisory Board to the Strategic Environmental Research and Development Program.

**JOHN B. MORAN****Consultant**

Mr. Moran recently retired from Federal service as the Director of Policy for OSHA after over 35 years devoted to public and worker health and safety. He held various management and executive positions in EPA, NIOSH, DOE, and OSHA during his Federal career and several research, management and executive positions in the private sector. He has served as an appointed member to several Federal Advisory Committee's including the CDC-NIOSH Federal Mine Health Research Advisory Committee, OSHA Advisory Committee on Construction Safety and Health, and the HUD Lead-Based Paint Policy Advisory Committee. He has been a member of the ANSI Construction Committee, editor of the Construction Column for the Applied Industrial Hygiene Journal, and President of the International Society for Respiratory Protection. Moran has testified before both Houses of the Congress on many occasions and before several State Legislative and Regulatory bodies.

Moran's areas of professional expertise include worker and public lead health hazards, confined spaces, hazardous waste operations and emergency response, worker training, occupational safety and health programs, respiratory protection, chemical and biological warfare defense systems including personal protection measures, and construction safety and health. He fostered the development of National Technical Workshop's to develop consensus guidelines to address occupational safety and health matters and spearheaded development of National Labor-Management-Government agreements on workplace S&H matters as an alternative to regulations or standards. A number of the consensus guidance criteria have been accepted nationally and internationally including Appendix E to the OSHA Hazardous Waste Operations and Emergency Response standard.

Moran is currently a consultant to Assistant Secretary of OSHA on matters related to the transition of DOE to external regulatory oversight by OSHA and to the NIEHS Worker Education and Training Program National Clearinghouse on matters involving worker training and advanced training technologies. He is a former member of the DOE Environmental Management Advisory Board on which he served as the Co-Chair of the Worker Health and Safety Committee and chair/co-chair of two ad hoc Committees.

Moran lives in Franklinton, North Carolina. He has five children.

**JOHN QUARLES**

Morgan, Lewis and Bockius LLP

John Quarles heads the Environmental Practice Group of Morgan, Lewis, and Bockius LLP, and resides in the Washington, DC office. His practice focuses on a variety of environmental law issues, providing counseling and litigation assistance on Superfund, hazardous waste, and air and water pollution matters. He heads several groups working on Superfund and RCRA implementation and reauthorization issues.

Before joining the firm in 1977, Mr. Quarles held two top positions in the Environmental Protection Agency. He served as the EPA's first general counsel from 1970 through 1973, and then served four years as deputy administrator, also serving two periods as Acting Administrator. He previously served as Assistant to the Secretary of the Interior.

A frequent contributor to books and articles, Mr. Quarles is the co-author of the firm's *New Clean Air Handbook* and is the co-author of the *PRP Organization Handbook*, published by The Information Network for Superfund Settlements.

He also is the author of "Cleaning Up America," "Federal Regulation of New Industrial Plants," "Groundwater Contamination in the United States," "Federal Regulation of Hazardous Waste: A Guide to RCRA," "Environmental Regulation: Brief for Reform" and numerous other articles.

Mr. Quarles is a former member of the board of directors of BetzDearborn Corporation and the Environmental Law Institute, and is a former chairman of the Environmental Quality Committee of the American Bar Association's Public Utility Section. He currently serves on the board of directors of the Christian Broadcasting Network.

Active in the firm's leadership, Mr. Quarles is a former member of the firm's Executive Committee and served for two years as chairman of the firm (1994-1996).

Mr. Quarles is listed in the Best Lawyers of America and was included in *Regardies'* survey of the 100 most powerful persons in Washington. He was also listed by the National Law Journal in 1986 in its survey, "150 Who Make a Difference."

000025

Following graduation from Yale University, Phi Beta Kappa, Mr. Quarles received his LLB from Harvard University, magna cum laude. He is admitted to practice in Massachusetts and the District of Columbia, and before the US Supreme Court.

**JENNIFER A. SALISBURY****Western Governors' Association and Western Interstate Energy Board**

Jennifer A. Salisbury received her Juris Doctor from the University of New Mexico School of Law, where she was a staff member on the Natural Resources Law Journal and recipient of the American Judicature Society Award. With Bar memberships in New Mexico and the District of Columbia, Ms. Salisbury has served as the Director of Legislation/Assistant Minority Counsel in the US House of Representatives and the US Senate (1978-1983), and as the Assistant US Attorney in Albuquerque, New Mexico (1983-1987). Following her position as General Counsel at the New Mexico Human Services Department (1988-1989), Ms. Salisbury returned to Washington, DC to serve at the US Department of the Interior as Associate Solicitor of General Law, Deputy Assistant Secretary for Fish, Wildlife, and Parks, and Deputy Assistant Secretary for Land and Minerals Management (1989-1993).

Upon her return to New Mexico, Ms. Salisbury served as Cabinet Secretary to the New Mexico Energy, Mineral, and Natural Resources Department, where she was responsible for coordinating nuclear waste transportation issues and managing a state agency with 485 employees and a \$45 million budget (1995-2002).

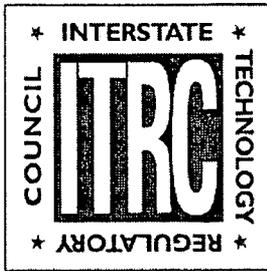
Ms. Salisbury is currently a consultant on nuclear waste transportation issues to the Western Governors' Association and Western Interstate Energy Board, and is in civil practice in the area of natural resources law. She has been a volunteer for the Southwest Arts Festival since 1995 and has been a volunteer mediator for the Bernalillo County Metropolitan Court in Albuquerque for the past two years.

**Thomas A. Winston****Ohio Environmental Protection Agency**

Mr. Winston has been with the Ohio Environmental Protection Agency for 29 years. For 21 years he has been head of Ohio EPA's Southwest District Office where he oversees the administration of water pollution, air pollution, drinking water, solid and hazardous waste and emergency and remedial response programs. In 1994, the state's new Office of Federal Facilities Oversight was put under his direction and is housed in the regional office. That Office provides statewide oversight on cleanup and environmental compliance activities at federal facilities across the state.

Mr. Winston has had extensive involvement at Department of Energy (DOE) Fernald, Mound, Portsmouth, Battelle and Ashtabula sites. In addition, he has represented the state at the national level on issues pertaining to federal facilities cleanup. He is Governor Taft's representative to the National Governor's Association Federal Facilities Task Force. He has represented Ohio on the State and Tribal Government Working Group (STGWWG) since 1991 and has been Co-Convenor of the group since 1994. He is also Ohio's representative to the Interstate Technology Regulatory Council.

Mr. Winston received his Bachelor of Science degree in Mechanical Engineering from the University of Cincinnati.

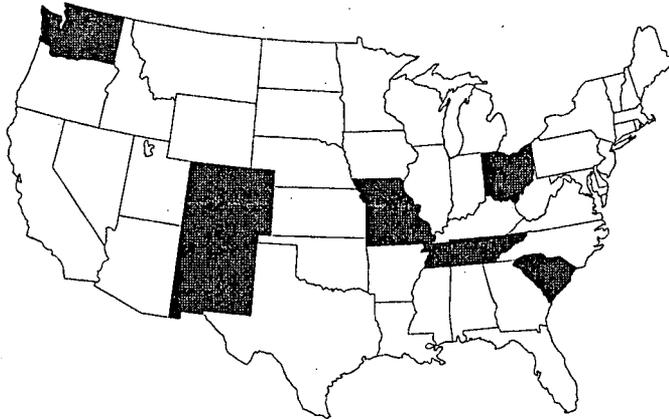


## Preliminary Results from the Survey of State Regulators' Perspectives on Technology and Implementation Issues for Long-Term Stewardship

*Conducted by the ITRC Radionuclides Team*

The Radionuclides Team of the Interstate Technology Regulatory Council (ITRC) was formed in 1999 to investigate innovative methods and approaches for characterization, treatment, and management of radioactively contaminated materials. The mission of the Radionuclides Team is "To facilitate cleanup of radioactively contaminated federal facilities by fostering dialogue between states, stakeholders, and federal agencies in order to increase awareness of issues and procedures at sites in other states, encourage regulatory cooperation, and share technological successes and approaches."

To investigate the long-term stewardship (LTS) challenge facing state regulators, the Radionuclides Team conducted a targeted survey of state regulators in states with major DOE facilities. The focus of the survey was DOE federal facilities, FUSRAP, and UMTRCA sites under DOE jurisdiction. A total of 31 regulators from seven states (see map) participated in the survey.



### Purpose and Design

This survey was developed to identify state regulators' perspectives on the areas of LTS that currently present challenges that would benefit from development and application of additional science (social, biological, chemical, engineering, etc.) and technology. It will enhance the Radionuclides Team's understanding of the technical issues surrounding LTS to

- guide the future LTS activities (training, guidance documents, technology evaluation) of ITRC,
- help the team make a more informed review of the LTS Science and Technology roadmap being developed by DOE, and
- influence the direction of decision makers and technology developers.

The survey was divided into seven sections: General, Treatment, Monitoring, Information Access and Use, Institutional Controls, Decision Making, and Path Forward.

## Preliminary Conclusions

The analysis of the survey is ongoing; however, observations of the data have yielded the following set of preliminary conclusions:

1. State regulators agree that investments in technology development should be a high priority in addressing LTS issues and that there are technology limitations affecting the ability of sites to successfully implement LTS.
2. State regulators believe that groundwater and disposal/containment facilities are of major importance for monitoring during LTS and that these areas need additional monitoring technology development.
3. State regulators say that redundancy in monitoring is important for LTS success. They also agree that real-time data and remote sensing and data transmission are important to effectively monitor LTS systems and structures.
4. For human surveillance of a site for LTS, activity at the site is viewed as more important than the location of the site relative to populations.
5. There are certain aspects of cap monitoring that cannot currently be handled with instrumentation, thereby requiring human monitoring of caps.
6. State regulators agree that technology is essential to the successful utilization of land use and institutional controls. Respondents also have highly variable experiences (positive and negative) with the use of signs, monuments, deed restrictions, zoning, building codes, and lease restrictions.
7. Records and information management is a very important concern of regulators with regard to effectively and efficiently conducting LTS.
8. Respondents say the following elements should be included in a comprehensive program to ensure long-term awareness of land use and institutional controls: (a) computer/database links for deed restrictions, on-site museum/educational facility, continued government use of the site, and community education classes.
9. State regulators agree that Citizens Advisory Boards (CABs) are effective communication methods for getting local community, tribal, and state values factored into LTS decision-making processes.
10. Enhancing public participation in LTS decision making requires communication mechanisms that foster person-to-person interactions and relationships over time as opposed to "information dumping." This is why CABs are seen as most effective along with local government interactions and public meetings.
11. For making the social science studies a useful tool in decisions, there seems to be a need for further work in knowing how to integrate the results of these studies into decision making (50% have experience, while only 43% find them effective).
12. Respondents are very supportive of future ITRC LTS projects, including a case study of landfill long-term monitoring technologies, a workshop on data retention technologies, and training on LTS technologies and decision making.

*For additional information about the results of the survey, please contact Tom Schneider at [tom.schneider@epa.state.oh.us](mailto:tom.schneider@epa.state.oh.us) or Smita Siddhanti at [siddhanti@endyna.com](mailto:siddhanti@endyna.com).*

**Charities in Fear of Initiative 1**

Monday, November 4, 2002

BY LINDA FANTIN  
THE SALT LAKE TRIBUNE

Pamela Atkinson is in a bind.

As a longtime advocate for Utah's homeless population, she knows how much they need the money that would be generated by Initiative 1.

Titled the Radioactive Waste Restrictions Act, the ballot measure calls for higher taxes on radioactive waste and pegs any revenue to help education and homeless Utahns. But it also would hurt Khosrow Semnani, owner of Utah's only radioactive waste dump and a frequent contributor to local charities.

Semnani said the initiative will bury his company -- a claim proponents refute -- and he has spent \$3 million to defeat it.

For this and other reasons, Atkinson and several other members of Utah's humanitarian community have opted out of the debate. But unlike lawmakers who have received tens of thousands in campaign donations from Semnani, Atkinson does not deny that the money has colored her view of Initiative 1.

"I'm really struggling with it," Atkinson said. "I don't want more of this stuff [nuclear waste] coming here, and I would be delighted if there were more money for the homeless.

"But that man really cares about people and I don't want to see his company shut down," she said. "I don't want to see us lose that funding source."

Proponents of the initiative are frustrated that Atkinson and some other Utah social service providers have not embraced the proposal.

"For years these groups have been begging the Legislature for a dedicated funding source and for the first time in the state's history, we have an opportunity to create one. And here they are on the sidelines. It's outrageous," said former state senator Frank Pignanelli, an attorney and spokesman for the initiative.

Since 1998, the nonprofit Semnani Foundation has given more than \$2 million to charitable causes, according to tax records. Foundation director John Pingree says 70 percent of the money is earmarked for international charities and 30 percent stays in the United States.

Although the foundation's incorporation papers say donations are for educational programs, especially projects "to preserve and/or improve the environment," most of the money now goes to help women and children, particularly in Iran, Afghanistan, South America and Africa, Pingree said.

The list of local organizations receiving money from the Semnani Foundation includes the battered women's shelter South Valley Sanctuary, Utah Boys Ranch, Crossroads Urban Center, Utahns Against Hunger, Catholic Medical Mission Board and LDS Charities.

The latter is a charitable giving arm of The Church of Jesus Christ of Latter-day Saints, whose newspaper, the Deseret News, has editorialized against the initiative.

Deseret News Editorial Page Editor Jay Evenson said he was unaware the Semnani Foundation had given \$85,000 to LDS Charities and that it had no bearing on the editorial.

"We met with people on both sides of the issue, we studied it extensively, and we took a long time making our decision," Evenson said. "The church had nothing to do with it."

The Salt Lake Tribune has editorialized in favor of the initiative. The paper's former publisher, Jack Gallivan, is among those campaigning for it.

Tribune Editorial Page Editor Vern Anderson said he has never spoken to Gallivan about the issue and his involvement did not influence the Tribune's position "in any way."

For his part, Gallivan said he has not noticed any lack of support for the initiative.

"I know Semnani has made contributions to some of the same groups that we support, but not enough to frighten anybody," Gallivan said.

Crossroads Urban Center director Glenn Bailey agreed.

"We value those donations very much, we string them together in order to stay open, but it's not a deciding factor," he said of the \$1,300 the center has received from Semnani.

## Voters Bury Initiative on Radioactive Waste

Wednesday, November 6, 2002  
BY JUDY FAHYS  
THE SALT LAKE TRIBUNE

Voters dumped Initiative 1.

The proposed radioactive waste law, the target of a multimillion-dollar opposition campaign by Envirocare of Utah, had received more than two "no" votes for every one cast in favor of the measure as of press time.

Utahns Against Unfair Taxes, the Envirocare-sponsored political issues committee, clinched its hard-won victory after a seven-month campaign to persuade voters the Radioactive Waste Restrictions Act was too complex for a citizens' initiative and unfairly taxed one company. Envirocare, which operates a radioactive waste landfill in Tooele County, said the measure would drive away its out-of-state customers and put the company out of business.

Envirocare owner Khosrow Semnani declined to comment at a celebration party for opponents at the posh Hotel Monaco in downtown Salt Lake City. But Hugh Matheson, leader of the opposition coalition, said: "The voters have overwhelmingly said 'no' to corporate warfare by initiative."

More than 95,000 voters signed petitions this past spring to put the measure on the ballot -- more than any other citizens' initiative in Utah history. But, because of opponents' legal and political maneuvers, it took a Utah Supreme Court order to secure the initiative a place on the ballot.

Opponents peppered the airwaves, phone lines and mailboxes with attacks on Initiative 1, including its promise of funding for schools and anti-poverty programs. Matheson said the campaign also benefited from endorsements from state legislators and dozens of other elected officials.

Up to the week before the election, proponents had spent \$717,033, compared to nearly opponents' \$2.9 million, virtually all of it from Envirocare.

The measure would have outlawed higher levels of radioactive waste from coming to Utah and raised taxes on low-radioactivity waste already permitted.

The initiative's defeat was a blow to a coalition that included the Utah Education Association, Crusade for the Homeless and environmental groups, such as Healthy Environment Alliance Utah and the Utah chapter of the Sierra Club. They blamed their loss largely on a lack of funds and the opposition's successful "strategy of confusion."

"I don't think we ever expected it to be a cakewalk," said UEA executive director Susan Kuziak.

4622

September/October 2002  
Radwaste Solutions  
"Environmental Restoration"

Page 1 of 9

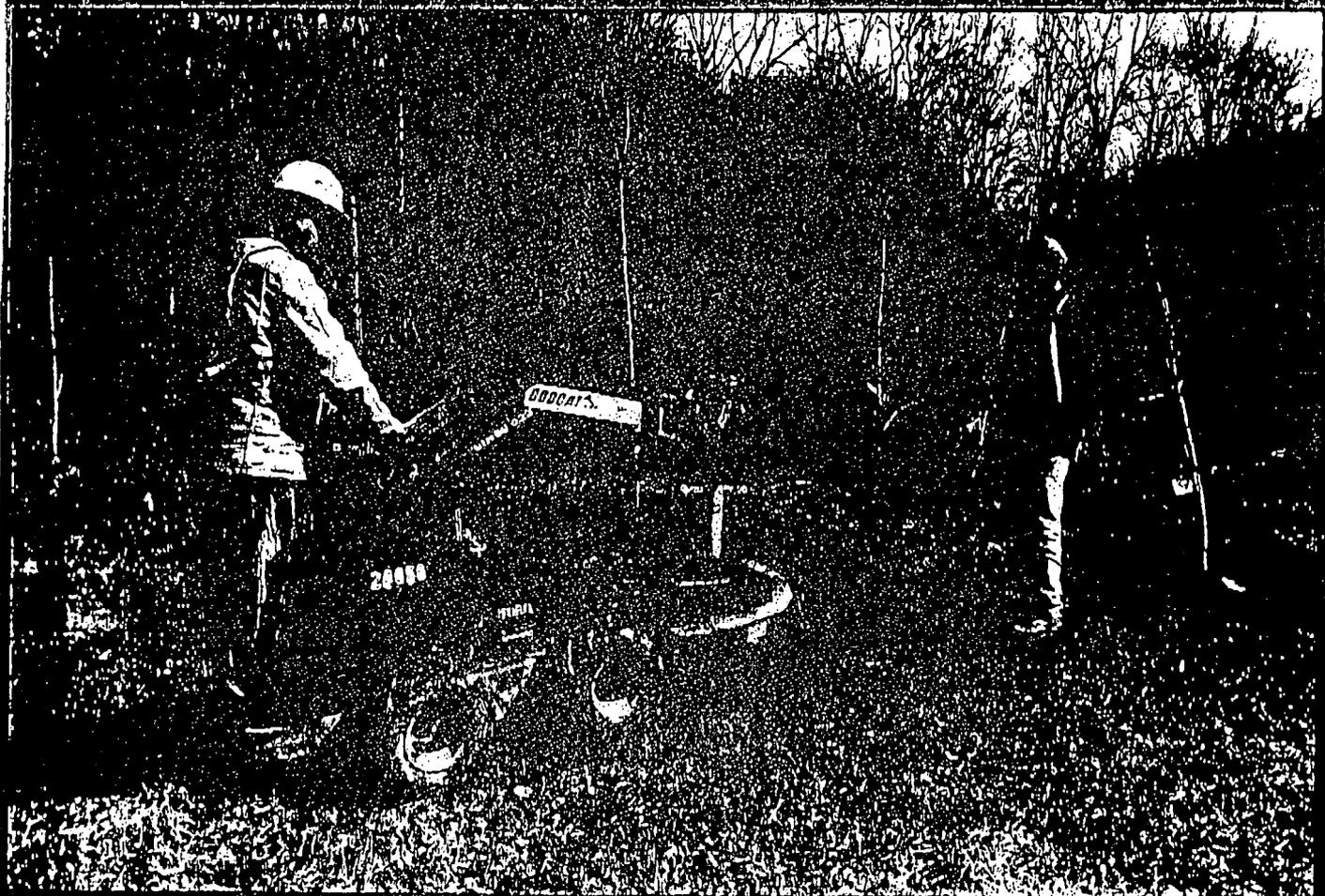
A PUBLICATION OF THE AMERICAN NUCLEAR SOCIETY

# Radwaste Solutions

THE MAGAZINE OF RADIOACTIVE WASTE MANAGEMENT AND FACILITY REMEDIATION

SEPTEMBER/OCTOBER 2002

## Environmental Remediation



### Also in this issue:

- What's Next for Yucca Mtn.?
- International HLW Storage

000003

4622

September/October 2002

Page2 of 9

Radwaste Solutions

"Environmental Restoration"

# Environmental Restoration

Fernald Ecologists and Engineers Integrate Restoration and Cleanup



The large quantity of clay in the soil and the depressions from soil excavation present optimal conditions for new wetlands. John Homer, Fluor Fernald restoration ecologist, surveys a wetland that workers created after remediating a 0.5-acre area.

By Eric Woods and John Homer

In 1998, the U.S. Department of Energy-Fernald Office (DOE-FN) and its cleanup contractor, Fluor Fernald Inc., initiated several ecological restoration projects in perimeter areas of the site (e.g., areas not used for or affected by uranium processing or waste management). The projects are part of Fernald's final land use plan to restore natural resources on 904 acres of the 1050-acre site. Working with the Fernald Natural Resource Trustees, an oversight board responsible for resolving the state of Ohio's 1986 claim against the DOE for injuries to natural resources, DOE-FN and Fluor Fernald developed the Natural Resource Restoration Plan. The plan outlines six major restoration projects that will restore injured natural resources at the site. Fernald's plan includes grading to maximize the formation of wetlands or expanded floodplain, amending soil where topsoil has been removed during excavation, and establishing native vegetation throughout the site.

Today, with cleanup more than 35 percent complete and site closure targeted for 2006, Fernald is

entering a new phase of restoration that involves heavily remediated areas. By working closely with engineers and cleanup crews, site ecologists can take advantage of remediation fieldwork (e.g., converting an excavated depression into a wetland) and avoid unnecessary costs and duplication. This collaboration has also created opportunities for relatively simple and inexpensive restoration of areas that were discovered during ongoing remediation.

To ensure the survival of plant material in heavily disturbed soils, Fernald will use techniques such as large-scale soil amendment, drainage modifications, and specially designed plant mixes. These techniques have not only helped ecologists manage the early phases of restoration at Fernald, but they will also be critical to the long-term success of restoring heavily remediated areas of the site.

Along with cleanup workers excavating pits and tearing down buildings at the Fernald site in southwest Ohio, site ecologists are working side by side to create thriving wetlands and develop the early stages of forest, prairie, and savanna ecosystems to restore natural resources that were affected by years of site operations.

## EARLY RESTORATION

In 1998, Fernald initiated ecological restoration activities in undisturbed, perimeter areas of the site because they were immediately accessible, met cleanup standards governed by the U.S. and Ohio Environmental Protection Agencies (EPAs),

000034

4622

September/October 2002

Page 3 of 9

Radwaste Solutions

SS 8 "Environmental Restoration"

**F**or the last two years, Fernald has been monitoring the overall health of the wetland system to improve or enhance wetland functions and ensure the requirement for replacement acreage is met.

and did not affect site cleanup activities. By starting in undisturbed areas, explains Pete Yerace, DOE-FN representative to the Natural Resource Trustees, Fernald ecologists could test restoration techniques, monitor growth patterns, and gain valuable field experience prior to restoring more difficult remediated areas. "In the last four years, we've conducted four restoration projects onsite and have collected extensive monitoring data. These data will help us prepare for more complicated upcoming restoration projects," said Yerace.

#### Wetlands

For site neighbors, the most visible restoration project is the 12-acre, 8-basin wetland that borders the northeast perimeter of the site. During its construction in 1999, Fernald workers planted 3327 trees and shrubs and 30 species of grasses and wildflowers that are native to southwest Ohio. The project brings 7 of 16.5 acres of new wetlands

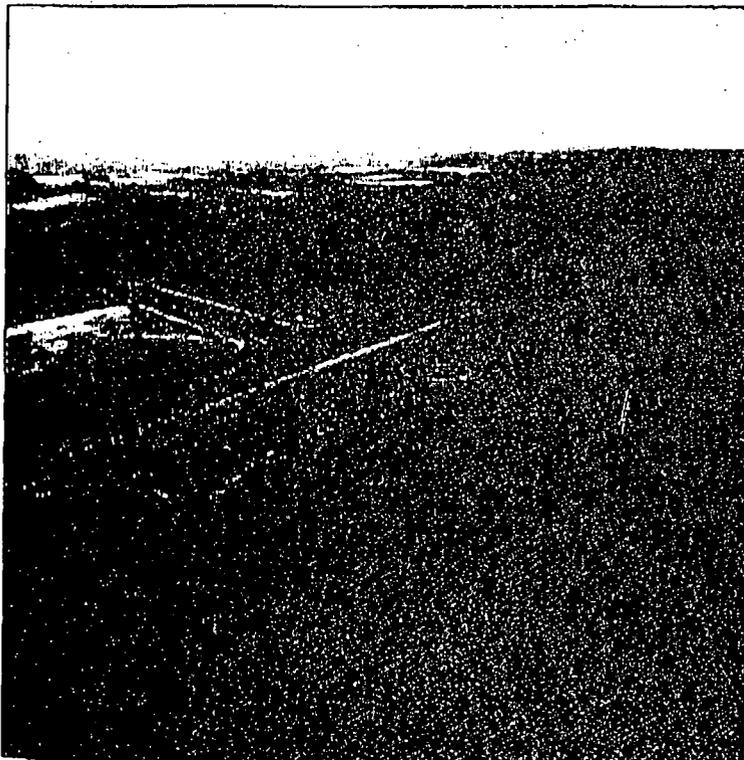
to compensate for wetlands that were destroyed during cleanup.

For the last two years, Fernald has been monitoring the overall health of the wetland system to improve or enhance wetland functions and ensure the required replacement acreage is created. Ecologists monitor water level and quality, woody and herbaceous species, soil, infrastructure, and maintenance. They also observe weather conditions and wildlife patterns and develop a summary of findings, problems, and lessons learned. Due to a severe drought in 1999, approximately 29 percent of the plant stock was lost. To maintain the 80 percent survival requirements for woody stock, Fernald replanted trees and shrubs in 2000 and 2001 and installed herbaceous wetland plugs in two basins to offset the lack of cover. In general, ecologists have found that the wetland basins are exhibiting good water retention capabilities, and the water quality and prevalence of wildlife indicate a healthy, balanced ecosystem.

Site ecologists have discovered that large quantities of clay in the soil and numerous depressions that remain following soil excavation and building demolition present optimal conditions for wetland creation. Ecologists and cleanup crews worked together to create new wetlands in two areas of the site that had been remediated.

Following a small soil remediation project in 2000, workers saw an opportunity to convert a 0.5-acre area into new wetlands. To retain water, workers installed a berm across the southern portion of the excavated area. The area was then reseeded with native grasses and forbs, and coir (coconut fiber) matting and willow cuttings were placed to control erosion at the outfall point. In spring 2002, workers planted approximately 2100 shrubs across the area. Most of the plants were installed as dormant live cuttings; Fernald will use the mature plants as a source of live cuttings for future restoration projects.

During early 2001 while removing contaminated debris from a 2-acre area on the site, workers took advantage of another opportunity to create new wetlands. To maximize water retention following debris removal, they graded the resulting basin and placed a large brush pile in the center of the shallow basin. They then seeded the area with native wetland grasses and forbs. To stabilize



To compensate for wetlands destroyed during cleanup, workers created a 12-acre, 8-basin wetland near the northeast corner of the site. The wetland includes more than 3000 trees and shrubs and 30 species of grasses and wildflowers.

000035



*Strategic placement of soil berms and seeding with native plant species are key components of wetland creation. Workers created this wetland after remediating a 2-acre area.*

the banks along Paddys Run, the adjacent stream where additional debris had been removed, workers applied erosion control measures, such as using live cuttings in conjunction with riprap.

Although these projects were not planned as wetland restoration projects, cleanup workers and ecologists responded quickly to opportunities in the field, creating new wetland environments with minimal funding and without disrupting cleanup work.

### Forest Ecosystems

A second major restoration project is the Demonstration Forest Project, which completes 18 acres of the 904 acres the DOE has committed to restore. In 2000, Fernald converted 18 acres of former pasture along the northwest perimeter of the site into native Ohio forests, planting more than 2000 trees and shrubs. Workers also constructed several ponds and wetlands, including a vernal pool that is designed to stay wet and provide amphibian habitat in the

spring and dry up in the summer. In addition, about two acres of the project were converted to tallgrass savanna, using native grasses and forbs.

Now, after the second full growing season, monitoring results and field observations indicate that seeded areas are progressing as planned. Woody plants achieved 80 percent survival; however, in 2002 in several areas workers replanted 90 plants that had been ruined by deer. To determine herbaceous cover, Fernald established random sampling quadrants. Fourteen of the 16 quadrants met the 90 percent cover criterion. Several invasive species are present, but ongoing maintenance of the restored area is gradually reducing the impact of invasive species. Fernald is required to monitor the area for three years, through 2003, to ensure the growth and progress of the new forest.

In a 70-acre area of the site that once contained rows of white and Austrian pines to mask site operations during the production years, Fernald will plant new trees and shrubs creating the early stages of a forest ecosystem. The first step of this restoration project was to remove 19 acres

**D**uring early 2001 while removing contaminated debris from a 2-acre area on the site, workers took advantage of another opportunity to create new wetlands.

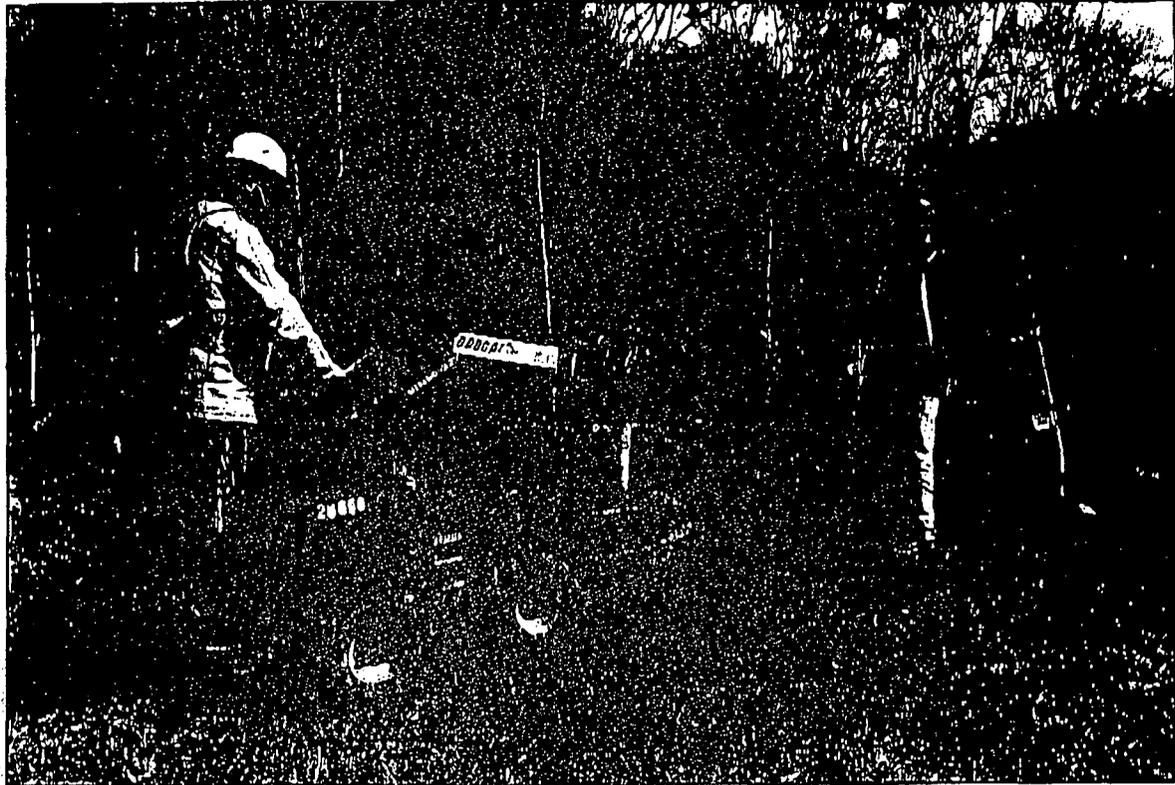
September/October 2002

Page 5 of 9

Radwaste Solutions

"Environmental Restoration"

4622



Fernald converted 18 acres of former pasture along the northwest perimeter of the site into the early stages of a forest community. Mark Fritts, operator, and Shaw Werf, laborer, are a few of the Fluor Fernald workers who planted more than 2000 trees and shrubs and constructed ponds, wetlands, and a vernal pool.

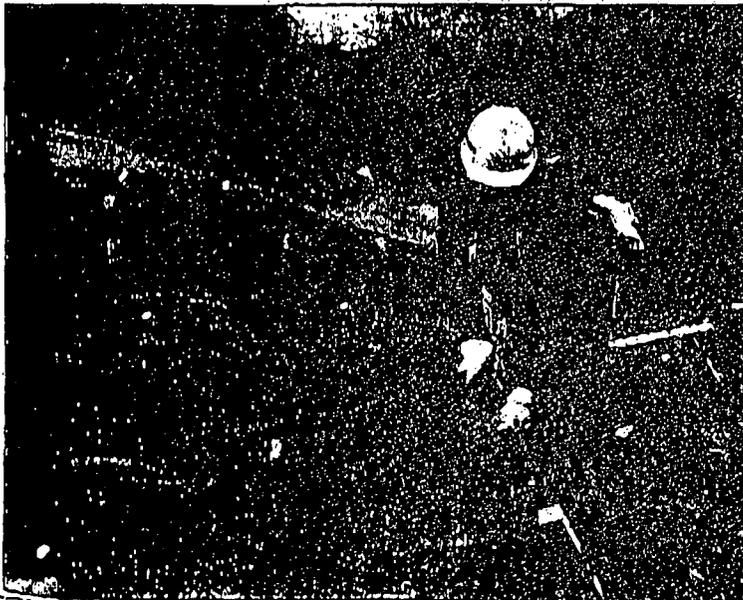
of diseased and overcrowded trees from the area. Workers chipped the trees and stockpiled the wood chips for later use as soil amendment and mulch in other onsite restoration activities. Now that the trees are cleared, workers will install and mulch 2970 saplings, 1656 shrubs, and 7200 seedlings and will seed the 50-acre project area with native

grasses. The restoration design also contains two open areas to support excavation of vernal pools and installation of prairie grass. Where possible, workers will modify the drainage to create wetlands and additional vernal pools.

#### Bioengineering Bank Stabilization

During construction of the Fernald site in the early 1950s, altering site drainage patterns and straightening the Paddys Run stream channel that flows along the western perimeter of the site resulted in stream bank erosion. In some places, banks were cut as deep as 50 feet into glacial overburden, reducing the stream's floodplain and riparian buffer. The erosion also threatened a sediment basin on the site.

To repair one portion of the eroding banks, Fernald implemented a project in 1998 using bioengineering, a technical discipline that merges engineering concepts with biological knowledge to design solutions for erosion and land stability problems. Fernald workers regraded the eroded slopes to restore the gently sloping floodplain and placed coir logs at the toe of the banks for stability. They then placed coir fabric along the length of the regraded bank, seeded the soil under the matting with a native prairie grass mixture, and inserted willow cuttings through the coir fabric into the ground to stake the fabric in place. These bioengineering techniques allow the stream banks to accommodate its intermittent high flow without eroding the banks. As the coir fabric decomposes,



Herb Chaffin, Fluor Fernald laborer, employs bioengineering techniques to control erosion and to correct creek bank stability problems along a stream that runs through the Fernald property.

000037

September/October 2002  
Radwaste Solutions  
"Environmental Restoration"

Page 6 of 9

4622



To construct the earthen layers of the seven-cell On-Site Disposal Facility, workers excavate soil, rock, and clay from a borrow area onsite. Fernald will restore the borrow area after construction of the cells.

the native plants continue to grow and spread, creating natural bank stabilization. Currently, all vegetation is established and the bank is stable.

### Ecological Research

Under an agreement with the U.S. EPA to settle a dispute resolution for missing enforceable milestones associated with one of Fernald's cleanup projects, the DOE agreed to implement supplemental ecological restoration and research projects. To educate neighboring communities about site ecological restoration and satisfy the dispute resolution agreement, Fernald developed a 1-acre park along the western boundary of the site. The Fernald Ecological Restoration Park, open to the public from dawn to dusk, has a small parking lot, a short trail with interpretative signs, and two overlook platforms. Fernald workers planted native trees, shrubs, grasses, and wild flowers, resulting in new habitats, including tallgrass prairie, old field, hardwood forest, upland forest, and wetland vegetation. Educators and students have used the park for field trips to study ecology and restoration techniques.

In 1999, the DOE implemented the following pilot-scale ecological research projects of possible site restoration strategies:

- Evaluating various approaches to forest restoration using different plant sizes and densities.
- Evaluating the optimal strategy for revegetating prairie grasses on areas where topsoil has been excavated.
- Reestablishing a population of blight-resistant American chestnut trees.
- Identifying invasive plant species and evaluating control methods to use during restoration.
- Developing an ecological restoration literature source for ecologists, scientists, and students.

From the data, ecologists have learned about invasive species control, the rate of volunteer re-

cruitment and optimal planting densities, and the approach for prairie creation in remediated areas and have refined final site restoration plans to incorporate lessons learned.

### Borrow Area

A primary component of Fernald's cleanup plan is the construction of a seven-cell engineered waste disposal facility that is designed to hold up to 2.5 million cubic yards of low-level contaminated demolition debris and soil. To construct the earthen layers of the cells, Fernald is excavating large portions of soil, clay, and rock from a nearby onsite area, leaving deep depressions near the main access road to the site. As part of the 904 acres of required restoration, a 190-acre borrow area and the perimeter of the On-Site Disposal Facility will be seeded with native prairie grass. Fernald will also plant 165 saplings and 1530 shrubs in select areas and establish wetland plant plugs near the edge of open-water areas. To control erosion, workers will install coir or jute matting downgradient of drainage features and dormant willow cuttings in matting adjacent to stream channels. Fernald will restore the borrow area in phases throughout construction of the disposal cells.

Fernald's plan includes grading to maximize the formation of wetlands or expanded floodplain, amending soil where topsoil has been removed during excavation, and establishing native vegetation throughout the site.

000038

September/October 2002

Page 7 of 9

Radwaste Solutions

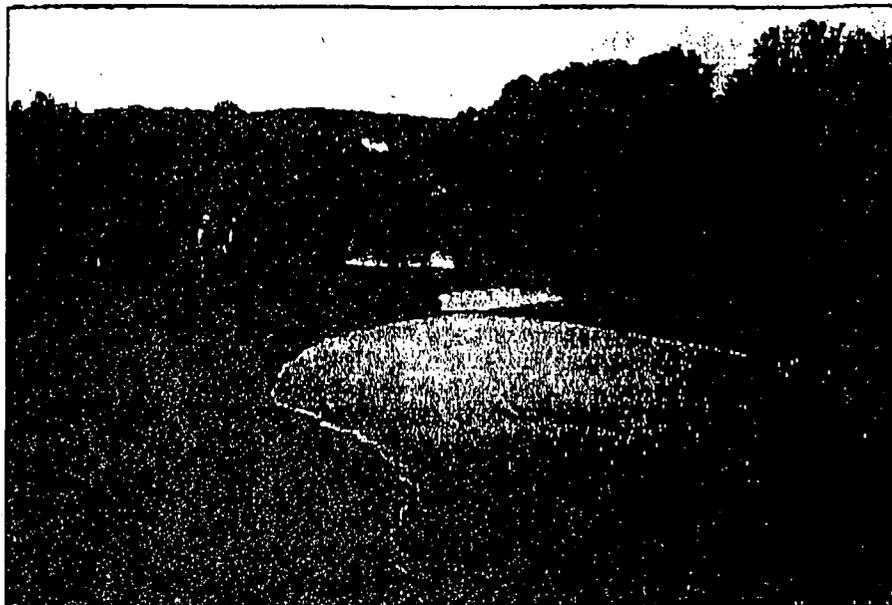
SS "Environmental Restoration"

4622

### RESTORING REMEDIATED AREAS

This year, Fernald has started restoring a 26-acre area called the Southern Waste Units—the first major restoration project in a remediated area. During uranium metal production, Fernald had dumped contaminated construction debris, boiler plant fly ash, and soil in the isolated area south of the site to make room for new structures. Also, Fernald's Security officers had used an adjacent area for fitness training and target practice. In November 2001, workers completed excavation and disposition of more than 400 000 yd<sup>3</sup> of contaminated soil and debris from the Southern Waste Units, eliminating a source of contamination to the underlying Great Miami Aquifer.

Using existing excavations made during remediation of the Southern Waste Units, Fernald will create additional



John Homer, Fluor Fernald restoration ecologist, and Sonny Youngblood, Wise Construction supervisor, evaluate an area that laborers are grading and seeding. The 26-acre area called the Southern Waste Units is the first major restoration project in a remediated area.



Deer browsing and rubbing can severely damage and destroy newly planted vegetation. To deter deer rubbing, workers install tree tubes and apply deer repellent.

floodplain with wetland features along Paddys Run and expand the wooded corridor near the stream. Workers will amend remaining subsoil with composted wood chips and stockpiled topsoil; install and mulch 2805 saplings, 1564 shrubs, and 6800 seedlings; and plant and seed native grasses and wildflowers. Fernald will complete restoration of the Southern Waste Units area in 2003.

Fernald's greatest restoration challenges lie ahead, following remediation of nearly 200 acres in the most contaminated areas of the site: the 136-acre former production area, where workers produced uranium metal products for the nation's defense program during the Cold War; the 37-acre waste pit area, which contains 1 million tons of solid and liquid waste in six pits; and the 10-acre area surrounding four concrete silos, three of which contain low-level radioactive wastes. The cleanup plan for each project involves excavating contaminated soil below the facility, pit, or silo to remove any material that exceeds regulatory limits. "Our biggest restoration challenges will be the deep, sloping depressions that will remain after the excavation work is complete," said Yerace. "Many of the depressions will be 20 to 30 feet deep, with extremely poor soil conditions. By working with the project managers early in the planning process, we can integrate restoration plans with ongoing remediation work and develop solutions that might not have been possible if we'd waited."

In 2006, Fernald will initiate the Production Area/Waste Pit Area Restoration Project and the Silos Area Restoration Project. The former project will cover approximately 190 acres in the central part of the site. Workers will install 825 saplings, 2081 shrubs, and 2000 seedlings. The restoration design for the latter project involves grading and seeding the disturbed area with native prairie grass and planting 825 saplings, 450 shrubs, and 2000 seedlings over five acres. Workers will grade the area and shape drainages to create deep depressions, with slopes at a 5-to-1 ratio for safety and stability. To create a diverse wetland system, workers will also integrate shallow depressions and swales into the final topography.

000039

September/October 2002  
 Radwaste Solutions  
 "Environmental Restoration"

Page 8 of 9

4622

**MONITORING**

To ensure site restoration projects are healthy and flourish during the critical early development years, Fernald will monitor all restored areas annually for a predetermined period of time. The monitoring occurs in two phases: implementation phase monitoring and functional phase monitoring. Workers conduct implementation phase monitoring for two years to ensure the restoration projects are completed pursuant to the Fernald Natural Resource Restoration Plan design plans. During negotiations with the Natural Resource Trustees, the DOE agreed that Fernald must achieve 80 percent survival of all planted vegetation and 90 percent cover of seeded areas. To determine vegetation survival, Fernald conducts mortality counts for two growing seasons and assigns one of three categories to vegetation: alive, resprout, or dead.

For wetland projects, Fernald must monitor and evaluate growth for three to five growing seasons. Depending on the project, specific design plans may impose additional implementation phase monitoring requirements for such factors as water levels and the formation of hydric soils.

During functional phase monitoring, workers review each project's system-specific contributions to the site's ecological communities. Rather than making a pass/fail determination as does implementation phase monitoring, functional phase monitoring evaluates the progress of the restored community against preresoration baseline conditions and an ideal reference site. Functional phase monitoring focuses on three broad community types: wetlands/open water, prairie, and forest. Using a Floristic Quality Assessment Index, as well as several other vegetation and wildlife indices, Fernald will evaluate each of these community types on a rotating annual schedule until the last restoration project is complete.

**RESTORATION TECHNIQUES**

One of Fernald's challenges has been controlling the impacts of the white-tailed deer on the newly planted trees and shrubs. Deer browsing and rubbing have severely damaged and destroyed planted vegetation. To deter deer rubbing, Fernald installed tree tubes on all planted saplings at the site and applied deer repellants on all trees and shrubs susceptible to browsing. These two approaches brought some success at reducing damage. However, there are still occasions when deer rip the tubing off the trees or snap limbs above the tubing, significantly reducing plant survival. Fernald has hired a deer specialist to suggest techniques to reduce deer damage in future restoration projects.

Another challenge has been eliminating or controlling invasive species. Fernald workers have conducted an "invasives sweep" across restored areas several times during



*The DOE and Fluor Fernald plan to complete site remediation and closure in late 2008 and natural resource restoration in 2007. Today, site cleanup is more than 35 percent complete.*

2000 and 2001 to search for amur honeysuckle, multiflora rose, and other invasive species. Workers either mechanically remove the plants or spray them with herbicide in the spring and fall of each year. To apply herbicide, workers have used several methods, including direct spray onto foliage, injection using an EZ-Ject Lance, and the "lop and squirt" technique, in which herbicide is immediately applied to the stump following mechanical removal. Fernald will continue to evaluate the most effective means of controlling invasive species.

Early coordination between ecologists and civil engineers maximized the benefits of final grading following remediation and thus brought about significant time and cost savings. In many instances, remediation activities will leave large depressions and altered drainage patterns. Instead of backfilling and grading to drain, Fernald is converting the postremediation topography to a "restoration grade," where possible. With slight alterations, construction pits and sedimentation basins become open water, emergent wetlands, and vernal pools.

Another problem that occurs following soil excavation is that the removal of all topsoil exposes compacted clay, sand, and gravel that are practically devoid of organic matter and macronutrients. Ecologists are using several techniques to amend the soil and make it conducive to growing vegetation: They compost wood chips from the site and incorporate the chips, stockpiled topsoil, or imported compost into the existing subsoil prior to restoration. In addition, workers inoculate all trees and shrubs with appropriate mycorrhizal fungi prior to installation to increase the plant's ability to take up water and required nutrients.

Seeding efforts across the site have evolved to a point where native grasses and forbs are used almost exclusive-

000040

September/October 2002  
 Radwaste Solutions  
 "Environmental Restoration"

Page 9 of 9

4622

ly. Ecologists have realized that the subsoil conditions following remediation actually benefit the establishment of prairie species, since weed growth is often suppressed. Native species are slower growing, but slope protection and erosion control is managed through the use of cover crops.

#### AFTER CLEANUP AND CLOSURE

The DOE and Fluor Fernald are on target to complete cleanup and site closure by late 2006 and natural resource restoration by 2007. Since the early 1990s, in anticipation of site closure, the DOE, Fluor Fernald, regulators, and stakeholders have been exploring key issues that will have an impact on the site's future and have developed consensus-based decisions on final land use and public use/access.

Following the DOE's approval of the final land use plan in 1999, the next step was to consider whether stakeholders should be allowed to use the property and, if so, what access would be compliant with the site's land use. Stakeholders expressed a strong interest in using the site for multiple purposes (primarily educational and recreational) following cleanup and closure.

Earlier this year, regulators and stakeholders accepted the DOE's proposed future public use plan for the Fernald site. The plan will allow limited public access for educational purposes, a fundamental component of the site's long-term stewardship plan. To showcase completed remediation areas and restoration projects, the DOE and Fluor Fernald will construct a series of walking trails, overlooks, and interpretive signs with information about the site's role during the Cold War as well as cultural and ecological points of interest. Visitors will be able to observe Native American reburial areas and Fernald's Cold War Garden, a memorial to workers, local residents, and others who made significant contributions to the site during its uranium production and cleanup missions.

In late 2002, the DOE will issue a draft Comprehensive Stewardship Plan for public review. The Comprehensive Stewardship Plan will identify monitoring and maintenance re-

quirements for the On-Site Disposal Facility, public use amenities, and restored areas and will outline the roles and responsibilities of the site steward, the entity that will manage the site after closure. The DOE has received overwhelming public support to construct a regional, multipurpose educational facility onsite. The Comprehensive Stewardship Plan will also identify requirements for managing and maintaining such a facility, if approved. Community groups are currently evaluating potential funding

options, uses, space requirements, and designs for such a facility and will issue recommendations to the DOE for consideration.

*Eric Woods is restoration manager and John Homer is restoration ecologist at the Fernald site. This article has been authorized by Fluor Fernald, a contractor of the U.S. government under contract No. DE-AC24-01OH20115.* ■

000041

November 18, 2002  
 Weapons Complex Monitor  
 Page 4

Page 1 of 2

"DOE Cleanup Authorized at \$6.7B; Includes Reform Account"

--462?

## DOE CLEANUP AUTHORIZED AT \$6.7B; INCLUDES REFORM ACCOUNT

*But Lack of An FY03 Appropriation Means It Can't Be Used*

House and Senate conferees reported out a compromise FY 2003 Defense Authorization bill Nov. 12, setting a funding level of \$6.76 billion for the Dept. of Energy cleanup program and, as expected, continuing to back the Department's proposed Cleanup Reform account to support accelerated cleanup. The bill, H.R. 4546, authorizes \$982 million for the Cleanup Reform account, more than the \$800 million originally requested by the Bush Administration, but less than the \$1.1 billion asked for in an amended request earlier this year (*see chart page 3*). However, no funds from the account may be allocated until 30 days after the Secretary of Energy submits to the House and

Senate Armed Services committees a description of the cleanup activities to be carried out.

But that still does not mean the Cleanup Reform account, which provides discretion to the Dept. of Energy on where the funds would be used, will be established. The FY 2003 Energy and Water Development Appropriations bill—which funds the cleanup program—has yet to be passed by either the House or Senate and the Senate version of the measure eliminates the account and instead specifies increased funding for each of the DOE cleanup sites. With the passage of a fifth Continuing Resolution Nov. 13 that extends FY 2002 appropriations until Jan. 11 (*see related story*), funding for the environmental management program will be among the 11 FY03 spending bills that won't be passed until the next Congress, delaying the start of new programs including many accelerated cleanup initiatives (*WC Monitor*, Vol. 13 No. 41).

### Cleanup Progress Report Requested

The bill also requires the Secretary of Energy to submit a report along with the FY 2004 budget request on the status of meeting goals outlined in Assistant Secretary for Environmental Management Jessie Roberson's "Top to Bottom Review" of the cleanup program. The report is required to include a "discussion of the progress in reducing such risks and challenges" in:

- Acquisition strategy and contract management;
- Regulatory agreements;
- Interim storage and final disposal of high-level waste, spent nuclear fuel, transuranic waste, and low-level waste;
- Closure and transfer of "environmental remediation" sites;
- Achievements in innovation by contractors of the Department with respect to accelerated risk reduction and cleanup; and
- Consolidation of special nuclear materials and improvements in safeguards and security.

The report is also required to include an assessment of the progress made in streamlining risk reduction processes and in improving the responsiveness and effectiveness of the Department's Environmental Management program. ■

000042

3300  
 November 18, 2002  
 Weapons Complex Monitor  
 Page 4

Page 2 of 2

4622

"DOE Cleanup Authorized at \$6.7B; Includes Reform Account"

FISCAL YEAR 2003 ENVIRONMENTAL MANAGEMENT BUDGET TRACKER (Dollars in Thousands)						
ENVIRONMENTAL MANAGEMENT	FY 2003 REQUEST	HOUSE DEFENSE AUTH.	SENATE DEFENSE AUTH.	DEFENSE AUTH. (Conference Report)	SENATE E&W APPROPS (Committee)	HOUSE E&W APPROPS (Committee)
Defense Facilities Closure Projects	1,091,314	1,091,314	1,109,314	1,109,314	1,125,314	1,091,314
<b>Defense ER &amp; WM</b>						
Post-2006 Completion	2,615,099	2,615,099	2,617,199	2,615,099	3,353,098	2,615,099
Site and Project Completion	787,950	787,950	793,950	787,950	981,350	787,950
Science and Technology	92,000	92,000	92,000	92,000	77,000	103,000
Excess Facilities	1,300	1,300	1,300	1,300	1,300	10,000
Safeguards and Security	228,260	228,260	278,260	228,260	228,260	228,260
Program Direction	358,227	344,000	396,098	344,000	324,000	344,000
Multi-Site Activities	479,871	479,871	441,000	479,871	479,871	489,352
(Prior Year Balances)	—	—	—	(34,000)	(34,000)	(34,000)
Civilian Personnel Accrual Adjustment			(14,000)	—	—	—
General Reduction	—	—	—	—	—	—
(Change for Reimbursable Work)	(4,347)	(4,347)	(4,347)	(4,347)	(4,347)	(4,347)
<b>Total Defense ER &amp; WM</b>	<b>4,558,360</b>	<b>4,544,133</b>	<b>4,601,460</b>	<b>4,510,133</b>	<b>5,406,532</b>	<b>4,543,661</b>
Defense Privatization	158,399	158,399	158,399	158,399	158,399	158,399
(Prior Year Balances)	—	—	—	—	—	—
<b>Total Privatization</b>	<b>158,399</b>	<b>158,399</b>	<b>158,399</b>	<b>158,399</b>	<b>158,399</b>	<b>158,399</b>
<b>EM CLEANUP REFORM</b>	<b>800,000</b>	<b>800,000</b>	<b>1,000,000</b>	<b>982,000</b>	<b>—</b>	<b>1,100,000</b>
<b>TOTAL DEFENSE CLEANUP</b>	<b>6,608,073</b>	<b>6,593,846</b>	<b>6,869,173</b>	<b>6,759,846</b>	<b>6,690,245</b>	<b>6,451,374</b>
Non-Defense Environmental Mgt.	166,000	—	—	—	193,000	213,259
Uranium Facilities Maintenance & Remediation	382,154	—	—	—	471,154	382,154
Uranium Enrichment D&D Fund Discretionary Payment	(442,000)	(442,000)	(441,000)	(442,000)	—	—
<b>TOTAL ENVIRONMENTAL MGT.</b>	<b>6,714,227</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>7,354,399</b>	<b>7,488,787</b>

000043

4622

*Techniques* November/December 2002

Page 1 of 2

Published by the Association for Career and Technical Education

Pages 60 - 61

**"The Great Oaks Institute of Technology and Fluor Fernald Partnership"**

In Greater Cincinnati, a company's partnership with career and technical education helps prepare its workers for new careers as their current jobs are phased out.

By Marie Bowling, Great Oaks Institute of Technology and Career Development



Photos Courtesy of Fernald Photography

### A Working Partnership

Great Oaks Institute of Technology and Career Development has been serving the southwestern Ohio area for more than 30 years, and during that time, the district's mission has been to strengthen the economy through the development of a highly

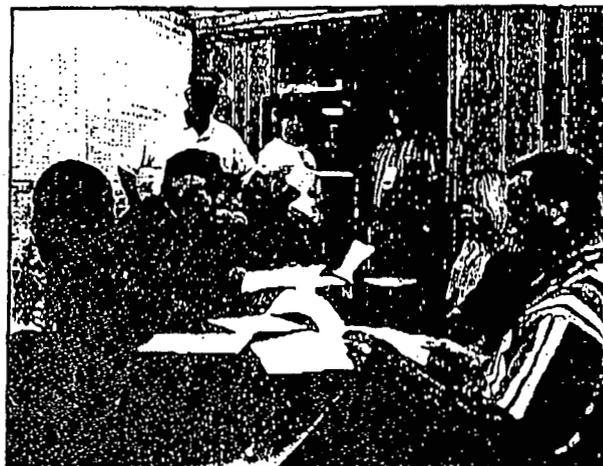
skilled workforce. The partnership with Fluor Fernald is just one example of many partnerships throughout the region in which Great Oaks has participated toward meeting that mission.

In early 1998, Fluor Fernald associates and Great Oaks began talking about a commercial driver's license training (CDL) program for employees who currently work at the plant. The purpose for this and other training programs is to prepare associates to change careers as their current jobs are phased out. Presentations were given to large groups, and the interest in the program was high. By June 1998, the details were worked out, and our first class was held at the company site.

Pete Branham and Dave Smail from the transportation department at Fluor volunteered to be the instructors, and it has been a tremendous selling point for this class. Branham and Smail have

strong backgrounds in the CDL field and communicate their knowledge base with ease. In addition, they have an excellent rapport with their team members. Students are comfortable with them and trust their judgment about the skills that they teach. The instructors have done an outstanding job.

Gene Branham, who is the president



**F**luor Corporation is a global building and services corporation that has the responsibility for cleaning up the nuclear waste facility in Fernald, Ohio, just west of Cincinnati. The cleanup is contracted through the Department of Energy.

Originally, in the 1950s, the plant in Fernald was a uranium processing facility. During the 1980s, after the Cold War was over, it was determined that there was no longer a need for production of nuclear weapons. At that time, Westinghouse was in full production at the site.

When the decision was made to stop production and clean up the area, the Department of Energy awarded a contract to Fluor to manage the task of cleaning up the waste. At the time Fluor began its work, there was an employee base of 3,000. Currently, there are 1,500 employees. The company is phasing out departments as the cleanup of the site progresses. The new target date for site closure is December 2006.

of Fernald Atomic Trades & Labor Council, has had nothing but praise for the program: "It has been a flagship of training programs that we—Mr. John Bradburne, president/CEO, and I—refer to as we travel across the country to other Fluor waste management sites. It has exceeded our expectations, and we could not have achieved this success without the cooperation of Great Oaks and the Department of Energy."

John Bradburne has since retired, but Jamie Jameson, who replaced him as president, is very supportive of the training programs provided by Great Oaks.

Branham says, "Some of the associates who have earned their CDL licenses and are still employed have been able to use

000044

4622

## Techniques November/December 2002

Published by the Association for Career and Technical Education

Page 2 of 2

their skills on their current jobs as the need arises. The others will have the skill when they leave Fernald as the plant closes. The reputation of this program has been so good that one of our own senior executives, Mr. Ed Zobrist, enrolled in the course and earned his CDL license."

### A Drive to Succeed

To date, 18 classes have been taught onsite with 144 students, including Edward Zobrist, mentioned above. Zobrist, who comes from a long line of Teamsters, comments that the course had offered him an opportunity to fulfill a lifelong dream. "The goal of the course is to make sure that everyone who wants a commercial driver's license has the chance to get it, and the instructors do whatever it takes to make that happen," he says.

Two more classes are anticipated for the fall of 2002.

The class is 80 hours total, with 20 hours of classroom instruction and 60 hours of hands-on. The students meet two evenings per week, right after their work schedule, and all day on Saturday. Two tractor-trailers are rented for a period of five weeks to allow ample time for eight students to complete the driving/maneuvering portion of the course. The class is completed in five weeks.

According to instructor Dave Smail, "All the students who took the CDL test have received their licenses. Several of the students who have left Fluor are now driving trucks. One individual is driving part time while his job is still intact at the plant."

Laira Steenberg, who served as career counselor in the Career Development Center, had this to say about the training program: "Strong customer service is more than a concept at Great Oaks. They demonstrate it by working with us to provide quality training during convenient hours that do not interfere with work. They understand our desire to prepare our people for jobs after the site cleanup is complete. The partnership of Great

Oaks with Fluor Fernald is a tremendous asset for our employees and our community."

Pete Branham, the other instructor in the course, says, "The cooperation between Fluor Fernald and Great Oaks has been super. Having the course onsite has been a great benefit, and our company was very supportive in providing the site. The staff in our Career Development Center were very enthusiastic about the training program and have helped make it successful." He is quick to add, "I wish everyone we worked with was as good to work with as Great Oaks staff."

"There are so many reasons the company can be proud of this program," Zobrist says. "It provides post-Fernald opportunities to our employees, they can receive tuition reimbursement to cover the cost, and the classes are conducted onsite. The job market looks great for this skill and will provide comparable wages for associates as they leave Fluor Fernald."

None of this would have been possible without the cooperative partnership between Fluor and Great Oaks and the support of the Department of Energy. Through a tuition reimbursement fund, employees have taken advantage of the opportunity to train for another field as they are forced to make a career change as a result of the plant closing. Fortunately for them, they were made aware of the need for this type of training, so they could prepare for life after Fernald.

On a personal note, Zobrist adds, "The driving portion of my daily life has forever changed. We need these guys and gals, and they deserve our respect and help whenever we can give it. Not a day goes by that I don't see an opportunity to help a trucker during one of his or her maneuvers, and I have used my headlight high-beam flasher to signal to them, 'I understand the maneuver you're trying to execute; let me help.' In nine out of 10 of these cases, I get an acknowledgement, and they flash back 'thanks,' and the pride that swells up inside of me confirming I

am one of them is indescribable."

Other training programs that have been provided for associates by Great Oaks at the Fernald site include Quality Tools, Introduction to ISO9000 and Industrial Forklift Training.

### Making It Work

A major ingredient in the success of this partnership is the working relationship developed among key players involved. The Great Oaks representative, as the provider of services, works with top management: President Jamie Jameson; President of Fernald Atomic Trades & Labor Council Gene Branham; Training Director Ray Beatty; human resource personnel, Paul Mohr, Scott Wallace and Bob Race; industrial relations personnel, Mike Kopp; and all of the instructors for the training programs. Communicating with individuals in the various roles is a vital part of developing a plan for training that is to be offered to the associates in the plant.

Program offerings being considered for the near future are heavy equipment operation, heating and air conditioning, and industrial maintenance.

The heating and air conditioning and the industrial maintenance courses are being planned for offering through the Great Oaks-Cincinnati State Technical and Community College partnership. The two education institutions recently held an education fair to present information about training programs to employees at Fernald.

President and CEO of Great Oaks Cliff Migal notes, "No one organization can meet the diverse training needs of business and industry, thus partnerships are an essential part of quality business today."

The partnership between Great Oaks and Fluor Fernald was recognized as a "Best Practice in a Business Partnership" at the ACTE Annual Convention in December 2001.

For more information about the Great Oaks and Fluor Fernald partnership, contact Marie Bowling at [bowlingm@greatoaks.com](mailto:bowlingm@greatoaks.com).

000045

4622

November 17, 2002

The Harrison Press

Page 3A

*Update shows progress on Fernald cleanup"*

## Update shows progress on Fernald cleanup

The following is an update of cleanup activities at the former Fernald uranium processing site in Crosby Township.

### **Aquifer restoration/wastewater project**

Throughout the summer, the aquifer restoration project activities have been visible along the southern property line parallel to Willey Road.

Work included installing three re-injection wells (two replaced original wells), bringing the total to six. The new wells will be operational by November.

Sampling of the aquifer along Willey Road continues to verify impacts of the re-injection system.

A contract was recently awarded to the Pangea Group to construct infrastructure for the South Field Phase II module, which includes four extraction wells, two injection wells and one injection pond.

For more information, contact Rob Janke, 648-3124.

### **Silos**

Within the next few weeks, crews will test the Radon Control System (RCS) Phase I in support of the Accelerated Waste Retrieval (AWR) Project.

The RCS is designed to reduce radon concentrations in Silos 1 and 2 headspaces during the future operation of AWR waste retrieval, handling and

treatment facilities.

In the coming months, engineers will complete the final remaining design for the AWR facilities. Workers will continue construction on the Silos 1 and 2 warehouse and site preparation for the treatment facility remediation building concrete mat foundation.

Also, a steel subcontractor will mobilize and crews will begin construction of the Transfer Tank Area deck. Fernald's soils group will sample and excavate the Silo 3 facility site and workers will continue site preparation for the Silo 3 waste handling facility.

For more information, contact Nina Akgunduz, 648-3110.

000046

October, 2002

DOE This Month

Page 11

4622

*"Completed demolition gives Fernald a clear view"*

## Completed demolition gives Fernald a clear view

For the first time since the early 1950's, workers and visitors at the Department of Energy's Fernald Environmental Management Project have an unobstructed south to north view of the 1,050-acre site. The completed demolition of the Safety and Health Building in August left an open path through the middle of the site where uranium processing plants and support facilities once stood. Health and safety personnel were relocated to other administrative facilities on site.

Since 1994, Fluor Fernald has demolished 107 structures—12 during 2002—and is nearing the halfway point of site demolition projects in support of Fernald's 2006-closure plan. The next major demolition project is the five-story Pilot Plant where Cold War workers developed operating prototypes for all phases of Fernald's production process.

The photo shows demolition of the Safety and Health Building in progress. Workers filled and transported more than 350 roll-off boxes of demolition debris to Fernald's On-Site Disposal Facility for final disposition. ❖



000047

October, 2002  
DOE This Month  
Page 16

4622

*"Construction workers set safety record at Fernald"*

### **Construction workers set safety record at Fernald**

The Greater Cincinnati Building and Construction Trades Council has provided craft services to support environmental remediation and construction projects at the Department of Energy's Fernald Environmental Management Project since 1992. The services are provided through a labor agreement with cleanup contractor Fluor Fernald.

The 400 construction craft workers at the Fernald Site recently reached five million safe work hours without a lost-time accident or injury. "There isn't another project within the two-state jurisdiction of the Building Trades that has a 10-year, five million man-hour record without a lost-time day from work," said Joe Zimmer, Executive Secretary of the Council.

The Building Trades Council and its local unions have provided maintenance and construction support to the Fernald Site for over 50 years and will continue to do so until site closure.

000048

November 6, 2002

Page 1 of 2

The Salt Lake Tribune

"Voters Bury Initiative on Radioactive Waste"

4622

## Voters Bury Initiative on Radioactive Waste

BY JUDY FAHYS  
THE SALT LAKE TRIBUNE

Voters dumped Initiative 1.

The proposed radioactive waste law, the target of a multimillion-dollar opposition campaign by Envirocare of Utah, had received more than two "no" votes for every one cast in favor of the measure as of press time.



Khosrow Semnani, owner of Envirocare, declined to comment on the vote at a celebration party for Initiative 1 opponents at the Hotel Monaco in Salt Lake City on Tuesday. (Danny La/The Salt Lake Tribune)

Utahns Against Unfair Taxes, the Envirocare-sponsored political issues committee, clinched its hard-won victory after a seven-month campaign to persuade voters the Radioactive Waste Restrictions Act was too complex for a citizens' initiative and unfairly taxed one company. Envirocare, which operates a radioactive waste landfill in Tooele County, said the measure would drive away its out-of-state customers and put the company out of business.

Envirocare owner Khosrow Semnani declined to comment at a celebration party for opponents at the posh Hotel Monaco in downtown Salt Lake City. But Hugh Matheson, leader of the opposition coalition, said: "The voters have overwhelmingly said 'no' to corporate warfare by initiative."

More than 95,000 voters signed petitions this past spring to put the measure on the ballot -- more than any other citizens' initiative in Utah history. But, because of opponents' legal and political maneuvers, it took a Utah Supreme Court order to secure the initiative a place on the ballot.

Opponents peppered the airwaves, phone lines and mailboxes with attacks on Initiative 1, including its promise of funding for schools and anti-poverty programs. Matheson said the campaign also benefited from endorsements from state legislators and dozens of other elected officials.

Up to the week before the election, proponents had spent \$717,033, compared to nearly opponents' \$2.9 million, virtually all of it from Envirocare.

000049

November 6, 2002

Page 2 of 2

The Salt Lake Tribune

"Voters Bury Initiative on Radioactive Waste"

4622

The measure would have outlawed higher levels of radioactive waste from coming to Utah and raised taxes on low-radioactivity waste already permitted.

The initiative's defeat was a blow to a coalition that included the Utah Education Association, Crusade for the Homeless and environmental groups, such as Healthy Environment Alliance Utah and the Utah chapter of the Sierra Club. They blamed their loss largely on a lack of funds and the opposition's successful "strategy of confusion."

"I don't think we ever expected it to be a cakewalk," said UEA executive director Susan Kuziak.

000050

November 26, 2002

The Cincinnati Post

"Radioactive waste disposal cells added at Fernald site"

4622

## Radioactive waste disposal cells added at Fernald site

---

### *Post staff report*

The Department of Energy and the Fluor Fernald company have built two new radioactive waste disposal cells at the former uranium processing plant at Fernald.

The cells are part of a seven-cell, on-site disposal facility that is nearly 40 percent complete. Since December 1997, Fluor Fernald crews have placed soil and rubble into the facility at a rate of 200 truckloads per day.

When the Fernald cleanup is complete, the on-site disposal facility will encompass about 130 acres, including a buffer area, and will be protected by a 10-foot-high fence.

The Fernald Citizens Advisory Board, U.S. Environmental Protection Agency, Ohio EPA and area stakeholders are currently working with the Department of Energy and Fluor Fernald to implement plans to return the remaining 920 acres of the Fernald site to its natural state with an undeveloped park.

The project is to be completed by December 2008.

000051

November 25, 2002

Inside Energy

Page 9

- - 4622

"DOE asks new board to help cleanup change for the better"

## DOE asks new board to help cleanup change for the better

The first meeting of the Energy Department's newly reconstituted Environmental Management Advisory Board last week provided a chance for members to become orientated with several management challenges facing the nuclear waste cleanup program led by Assistant Secretary Jessie Roberson.

Operating under a revised charter, the group received Roberson's mandate for "a more specialized effort to deal with the types of management challenges facing the EM program." One of those daunting tasks requires reducing by \$50 billion the total lifecycle cost for cleaning up radioactive and hazardous material generated during the Cold War. Roberson identified cost reduction as one of the three top goals for the program, whose total lifecycle cleanup cost in fiscal years 2000 and 2001 grew by \$14.7 billion.

Officials were unable to elaborate on the huge price increase. "Was it a new scope of work?" Joe Nolter asked. Nolter was a consultant to EM on its "top-to-bottom" review completed in February. The review concluded that the manner in which the program develops, solicits, selects and manages many contracts is not focused on accelerating risk reduction and applying

innovative approaches to conducting the cleanup.

"Was it new regulatory requirements or was it poor mechanics? Which one was it?" Nolter continued. "We don't know. The program was focused on the year-to-year [funding] approach as opposed to looking at the overall picture. We were managing risks, but we were not eliminating them."

Roberson, speaking on Wednesday to the group in Washington, identified and discussed her other goals for the program, which include reducing by 2012 high environmental risks at sites and achieving visible accelerated-cleanup. "My goals are simple: complete site cleanup sooner, complete high-risk work by 2012, and move from risk management to risk reduction," she said.

The top-to-bottom review highlighted many problems facing the program. Shortly after its February release, Roberson began working to develop solutions. Eight months later, Roberson announced the establishment of eight "corporate" project teams to improve the program's performance (*related story below*).

Roberson and other DOE officials at the EMAB meeting called the new approach a "corporate means of institutionalizing project reforms" that would en-

sure they do not fade away after the current administration. In doing so, the effort establishes a corporate system to operate the cleanup program as a project. The idea is that a project has specific objectives and specifications, as well as a well-defined start and end date, not to mention funding limitations. Each project team has an operating charter and is developing formal project management plans for approval by Roberson, who has set aggressive deadlines.

The Environmental Management division's chief operating officer, Paul Golan, said officials realized after the top-to-bottom review that the schedule for one-third of the cleanup projects had slipped. "For every dollar Congress gave, it meant a \$2 liability for the environmental management program. That's why we want to manage [the cleanup program] as a corporate project."

EMAB Chairman James Ajello said the challenge for the group will be to determine a handful of issues to help EM with its decisionmaking process and recommend options to resolve issues on various matters, such as overall program performance, contracting performance, and technology applications. "We have a lot of work in front of us, to state it mildly."

—Shawn Terry

000052