



FCAB UPDATE

Week of December 29, 2001

(Last update was November 5, 2001)

MEETING SCHEDULE

Stewardship Committee Meeting

Thursday, January 10, 2002, 6:30 p.m.

PEIC – Public Environmental
Information Center

Fernald Citizens Advisory Board Meeting

Saturday, January 12, 2002, 8:30 a.m.

PEIC – Public Environmental
Information Center

ATTACHMENTS

- Draft Minutes from the 12/01/01 FCAB Meeting (*Please review and comment by 1/19/02*)
- 11/29/01 Stewardship Committee Meeting Summary
- Final Minutes of the 10/13/01 Annual Retreat
- Draft 1/12/02 Full Board Meeting Agenda
- 2002 FCAB Annual Calendar
- DOE Long Term Stewardship Strategic Plan (*for review by 1/10/02*)
- Ohio EPA Comments on DOE Top to Bottom Review
- Jesse Roberson Response to Concerns Expressed by Chairs of Local EMSSAB
- News Clippings and miscellaneous articles

FOR FURTHER INFORMATION

Please contact Doug Sarno or David Bidwell at The Perspectives Group

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FULL BOARD MEETING
Public Environmental Information Center

Saturday, December 1, 2001

DRAFT MINUTES

The Fernald Citizens Advisory Board met from 8:30 a.m. until 12:30 p.m. on Saturday, December 1, 2001, at the Public Environmental Information Center in Harrison, Ohio.

Members Present:

French Bell
 Jim Bierer
 Lisa Blair
 Marvin Clawson
 Lisa Crawford
 Pam Dunn
 Gene Jablonowski
 Steve McCracken
 Graham Mitchell
 Robert Tabor
 Thomas Wagner
 Gene Willeke

Members Absent:

Kathryn Brown
 Steve Depoe
 Jane Harper
 Sandy Butterfield

Designated Federal Official:

Gary Stegner

The Perspectives Group Staff:

Douglas Sarno
 David Bidwell

Fluor Fernald Staff:

Tisha Patton

Approximately 15 spectators also attended the meeting, including members of the public and representatives from the Department of Energy and Fluor Fernald.

Call to Order

Jim Bierer called the meeting to order at 8:30 a.m. Minutes from the October 13, 2001 Board retreat were approved. The Board formally invited DOE to offer membership to three candidate members, Lisa Blair, Kathryn Brown and Blain Burton.

General Remarks and Announcements

Doug Sarno asked the group to identify a date for the annual SSAB chair's meeting, which the FCAB will host in downtown Cincinnati. The group selected April 11 through 13, 2002. The full board and stewardship committee meetings for April will be moved back one week to April 20 and April 18 respectively.

The board reviewed an article that announced the Pantex Plant Citizens Advisory Board has been disbanded. DOE shut down the board due to disagreements over the board's desire to discuss defense related issues. This is the fourth site-specific advisory board to disband to date. Board members expressed regret that the members of the Pantex board would no longer be involved in SSAB activities.

Lisa Crawford distributed a letter from FRESH to Jessie Hill Roberson of DOE headquarters. The letter invites Roberson to visit the Fernald site to see first-hand what is happening at the site, learn about the progress that is being made, and interact with stakeholders. Lisa indicated that she would follow up the letter with a telephone call to Roberson.

Doug distributed an article he wrote for the International Association of Public Participation (IAP2) newsletter. The article highlights the Future Fernald process. Doug also explained that an application was being submitted to nominate the FCAB for an IAP2 Core Values award for its work on the Future of Fernald.

The group reviewed a memo from Roberson, which outlined her Environmental Management Priorities. One priority presented in the memo was to close Fernald and Rocky Flats by 2006. Susan Brechbill stated that a 2006 closure date is in-line with the goals of the Ohio Field Office, but to-date, the necessary funding has not been allocated to accomplish this goal. Susan will reiterate the need for appropriate funding in an upcoming videoconference with Roberson. Gene Willeke expressed the need for a cleanup schedule at Fernald that supports a 2006 closure date. Pam Dunn added that long-term funding for stewardship beyond the closing date should be explicit in DOE's priorities. Overall, concerns were raised regarding the attainment of this closure date while maintaining a high quality of work at the site. Doug indicated that issues pertaining to the closure date would be a significant focus of the January FCAB meeting. Lisa Crawford voiced concern that stakeholder input was not used to develop the priorities outlined by Roberson and that this might reflect a general lessening of headquarters' focus on stakeholder involvement. Other attendees echoed Lisa's thoughts and indicated that stakeholders at other sites share these concerns. Doug will work with Jim Bierer and Tom Wagner to draft a letter from the SSAB

chairs that advocates a high level of stakeholder input in decision making. This letter will be proposed to the Chairs and ready to sign at the April SSAB chair's meeting.

Jim noted that Public Affairs is interested in public nominations of any Fernald success stories that could be submitted to complex-wide newsletters.

Susan indicated that no feedback on the Top to Bottom Report had been received. She also stated that it was unclear how the issues raised in the report would be addressed. More information should be available by the January meeting.

Susan explained a letter she wrote to Fluor Fernald President, John Bradburne, regarding records management. The letter indicates that part of the 1986 moratorium on the destruction of records has been lifted. For the past fifteen years, all records generated at the site have been retained and stored. Since the litigation that spurred the moratorium has ended, many of the documents in storage are eligible for destruction. Certain records, including epidemiological studies, litigation-related records, and weapons records, are still required to be retained and will not be destroyed. A symbolic shredding of some cafeteria cash register receipts has already occurred. Susan explained that because records storage is expensive, records from The Mound might be sent to the Fernald storage site as space becomes available. She asked that any questions be directed to her or Steve McCracken. Steve suggested that the staff of the Records Center speak directly to the FCAB at a future meeting. FCAB members felt strongly that stakeholders should be involved in determining which records will be retained, because they may have a different perspective from DOE on the importance of some documents.

Graham Mitchell explained that the Welden Springs site in Missouri is facing some long-term stewardship issues. People associated with Welden Springs have been pointing to Fernald as a positive example. The problems being experienced in Missouri, according to Graham, might indicate a need to better inform the new administration at headquarters about stewardship issues.

Graham noted that he will be attending and speaking at the SSAB groundwater workshop at Savannah River on January 31 to February 1. Pam Dunn will also be attending and Lisa Blair expressed interest in attending as well.

French Bell explained that reassignments of ATSDR staff to the CDC in the wake of September 11 might impact implementation of the agency's five-year plan. French told the FCAB members that they had been added to the mailing list for ATSDR's quarterly newsletter.

Current Remediation Issues

Doug announced that Terry Hagen would provide the board with regular updates on how construction is being accelerated through efficiency measures.

Terry discussed five major initiatives with the group. First, Terry introduced a program headed by Ed Zobris that encourages employees to generate ideas for cost saving. This program has resulted in approximately 800 suggestions and saved an estimated 20 million dollars. Examples of suggestions that have been implemented include the bulk purchase of office supplies instead of each organization on the site purchasing its own supplies. The second major initiative discussed by Terry was the reduction of the labor force through attrition, voluntary separation, and better needs-focused project planning. Last year, the initiative achieved a net reduction of 187 employees. This year, there is the goal to reduce the workforce by another 175 employees.

The approved design for the OSDF calls for a four-foot layer of contaminated soils to be placed between each layer of contaminated debris. Terry explained that the depth of this intervening soil layer was based on preliminary calculations of soil and debris volumes. He further explained that as the construction phase has progressed there is more debris and less soil than originally anticipated. To follow the original plan, Fluor would have to import soil to the site, which would add expense and time to the cleanup. J.D. Chiou explained his proposal for a revised design, which would eliminate the need to import soil and result in a more stable OSDF. He explained that by reducing the depth of the intervening layers of soil to two feet, the debris is spread more evenly over a larger surface, the overall profile and slope of the OSDF is reduced, the center of gravity is lowered and the soil will settle more evenly. Fluor is seeking approval by the regulating agencies to implement this revised plan.

The fourth initiative discussed by Terry was a proposal to dispose of small quantities of various low-level legacy residues in the same manner as the material in the waste pits. Waste pits material is stabilized and shipped to Envirocare by rail. Fernald has been discussing this proposal with the regulators and have reached a conceptual agreement to prepare an Explanation of Significant Difference (ESD). The most significant obstacles are meeting DOT requirements for shipping and the waste acceptance criteria of Envirocare. Although a public meeting is not required to approve this decision, Fluor would like to go beyond these requirements and discuss this issue at a regular cleanup progress meeting. It was ultimately decided to devote a cleanup progress briefing to discussion of the ESD, and also provide some time following so that additional cleanup issues could be briefly discussed after the end of a time designated and advertised for the ESD.

Finally, Terry discussed a proposal that could result in sending all silo materials to Envirocare. Terry stressed that this idea was in early stages of investigation and might not be feasible. Under this proposal, the materials in silos one and two would be treated and stabilized in the same manner as is planned for silo three materials and shipped to Envirocare by rail. To do this, NRC acceptance levels for Envirocare would have to be revised and DOT shipping requirement would have to be met. Terry promised to present more information on this idea if it is pursued any further.

Terry also responded to an earlier question regarding the existence of a plan that would allow the site to reach a 2006 closure date. Terry explained that a plan is currently being revised. He stated that given current funding and costs, Fluor believes that cleanup of everything excluding waste pits and silos will be completed by 2006. The waste pits have presented a greater weight of material than expected, so reaching the 2006 goal likely would require a third shift of activity, but this is very doable. Susan stated that the Ohio Field Office has advocated using a 2009 baseline plan, with a goal of completing the project by 2006. Doug indicated that the cleanup schedule would be a significant focus of the January FCAB meeting.

Silos Update

Ray Corady, the new Fluor Fernald manager of the silos projects, reported on the current status of silos activities. He explained that plans for silos have not changed, although the new disposal measures discussed by Terry are being considered. Ray stated that he would not commit to new plans until it is clear that they could reduce cost and time while completing the job safely and effectively. The possibilities of creating a rail spur and producing a container shape that would fit on a rail car are being investigated.

Ray told the group that the construction of the interim storage tanks is moving forward at the silos site. Also, a blue stack has been constructed as part of the radon control system. Carbon beds, which will absorb the radon gas, will be installed soon.

Ray reported that the due diligence for salvageable Foster-Wheeler work has been completed and his team is currently working on design modifications for Accelerated Waste Retrieval (AWR). The silos team recently conducted a two-day working session with EM50 to review and improve AWR concepts. On December 15, a change proposal will be completed to document any changes to the AWR plans. With slight modifications, the radon control system can be constructed as planned and should be in place by November 2002.

Jacobs Engineering in Oak Ridge is working on designs for silos one and two. Plans for silo three are further along in the conceptual design stage. Ray reported that a structural design expert was consulted regarding silo three. An opening will be made in the side of this silo to facilitate the excavation of the material inside. According to Ray, this expert expressed a high level of confidence that the opening can be made safely and presented ideas for reinforcing the silo wall to ensure structural integrity. Ray stated that highly respected materials handling experts were also consulted in order to better understand how the materials should be properly handled and what precautions should be taken during their removal. Ray stated that the team is performing assessments for each silo and will implement mockups to ensure that removal and treatment plans are complete.

Todd Martin reported that the CAT recently made two trips to Jacobs to assess the design team, their design documentation, and their management systems. Todd stated that the designs are progressing well. In January, the CAT will perform a formal review of the conceptual design for silo three. Preliminary designs for silos one and two are anticipated in March or April. The CAT expressed confidence in the Jacobs design team overall.

Tour of the PEIC

Diana Rayer led the FCAB members on a tour of the Public Environmental Information Center. The center contains a variety of resources available to the public and on-site workers, including the site technical library, general reference guides and copies of the administrative record for the site.

Records Management Feasibility Study

Doug reviewed the scope of the records management feasibility study, which will be undertaken by the Stewardship Committee. Funds are being allocated by EM51 of DOE and will be added to The Perspectives Group contract. This is a critical time for this project, because DOE is currently managing an extraordinary volume of paper records, photographs, videos, and artifacts. Because a substantial part of the 1986 moratorium on the destruction of records has been lifted, DOE is developing a process to determine what will be kept and what will be destroyed. While the retention of some items is required by regulation and policy, stakeholders may have an interest in the long-term retention of additional materials and how those materials will be made available to the public.

Doug explained that the first step in the feasibility study would be to review literature and other resources that address the issue of records management. This includes the identification of relevant case studies. Then in late February or early March, a public workshop will be held to gather stakeholder input on community needs regarding the long-term retention and accessibility of records and other historical materials. Doug stated that a special effort would be made to involve area high schools and universities in this workshop. Pam Dunn recommended inviting Tribes to take part in these workshops. The results of these steps will be reported back to EM51.

Once community needs are identified, a design charette will be conducted with a representative group of stakeholders. While this study is focused primarily on records management, other uses for a potential public information center will be considered during this phase of the study. Doug explained that professional architects would help the public to identify physical and structural characteristics of a building that will meet community needs. Then, the architects will develop a design program, which will include visual renderings, preliminary assessments of square footage required for various uses, and rough cost estimates. The ideas generated during each step of the study will culminate in a final report, which should be submitted by the end of the fiscal year.

According to Todd Martin, Hanford held a number of openness workshops a couple of years ago that addressed some of the same questions. During the process, community members helped to generate a keyword list that was used to manage information about the site. Todd promised to provide Doug with more information about these workshops.

Public Outreach Beyond the FCAB

Doug expressed a need for FCAB members to consider how DOE and Fluor can improve communication with the community beyond the board or Stewardship Committee. The general public should have access to information that will help them understand the history of the site, what's happening at the site now, and what will happen in the future. Doug promised to present prototype materials at the January meeting, which could be distributed at the regular cleanup status briefing meetings. Lisa suggested that outreach efforts be evaluated on a cost and benefit basis.

Doug also noted that fact sheets have just been redesigned by the site and are very good. These fact sheets provide background information, not information on the status of the cleanup. Gene cautioned that because the sheets include glossy photographs, the public might perceive the sheets to be a public relations tool. It was explained that to save costs the sheets were produced via an in-house laser printer, and that is why the photos appear glossy. Doug promised to provide the FCAB members with a full set of fact sheets.

Lisa Crawford stated that it would be helpful to have Fluor managers at each public briefing meeting.

Public Comment

Edwa Yocum asked French Bell about the status of the ATSDR public health assessment. French stated that the assessment had fallen behind schedule due to increased work from the September 11 incidents.

Edwa announced a new community organization, the Fernald Community Health Effects Committee. This committee will meet on the first Wednesday of each month at the Crosby Senior Center.

Edwa suggested that site workers be involved in determining which records should be retained at the site. She also suggested it is important to preserve historical documents such as The Atomizer newsletter, which captured details of the social life of Fernald workers. Steve McCracken reiterated the importance of having the community involved in decisions about records, because there is likely to be a disconnect between what DOE and the community want to preserve.

The meeting adjourned at 12:30 p.m

MEETING SUMMARY

Date: November 29, 2001

Topics:

- Draft Comprehensive Stewardship Plan
- Roberson Memo on Stewardship
- Parking at Fernald Site
- Letters of Interest from Tribes
- Public Records Feasibility Study

Attendees:

Fernald Citizens Advisory Board

Jim Bierer
Marvin Clawson
Steve Depoe
Pam Dunn
Bob Tabor

FRESH

Carol Schroer
Edwa Yocum

The Perspectives Group

Doug Sarno
David Bidwell

U.S. Department of Energy

Johnny Reising
Ed Skintik
Gary Stegner

Ohio Environmental Protection Agency

Tom Schneider
Anne Wickham

Fluor Fernald

Tisha Patton
Paul Pettit
Joe Schomaker
Larry Stebbins
Ric Strobl
Jeff Wagner
Eric Woods

Others

Keith Wilkerson
Jim Innis

Draft Comprehensive Stewardship Plan

Doug Sarno opened the meeting and introduced Gary Stegner, who distributed a second revision of the Draft Comprehensive Stewardship Plan. Gary explained that the final version of this plan would include more information on records management and funding. He encouraged the committee to provide input on the draft plan by February 1. The Perspectives Group will provide the Stewardship committee with a summary of the documents' key points prior to the January meeting, at which the draft plan will be discussed in greater depth.

The committee reviewed a revised timeline for issues concerning the Public Use Decision and Natural Resource Settlement. Eric stated that a draft of the environmental assessment (EA) should be available for public review by January 1. If the release of the EA is delayed, the date of the January 15 meeting will be moved back.

Roberson Memo On Stewardship

The committee reviewed an internal DOE memo, in which Jessie Hill Roberson, the Assistant Secretary for Environmental Management, explained her recent decisions regarding long-term stewardship. These decisions include consolidating programmatic and policy initiatives at headquarters and instigating a review of regulatory requirements for post-closure stewardship. In addition, field office membership on the Executive Steering Committee for stewardship has been reduced to four—Albuquerque, Chicago, Rocky Flats, and Savannah River. Anne Wickham explained that each of these offices represents a specific category of sites; the Rocky Flats Field Office represents closures. Bob Tabor responded that he was unhappy that the Ohio Field Office was not included on the steering committee, since Fernald is so close to closure. Doug stated that it was valuable to keep up-to-date on how DOE headquarters and other agencies are handling stewardship, because any policy decisions might impact future decisions at Fernald.

Parking at the Fernald Site

Gary Stegner pointed out that the Top to Bottom Review was a good opportunity for stakeholders to provide input on how well Environmental Management is handling its work. The deadline for comments was December 3.

Doug explained that as part of new security procedures at the Fernald site, all vehicles entering the site must have a decal or visitor's parking pass displayed on the dash board. Anyone with an identification badge can get a pass. The pass expires on the same day as the identification badge. During the meeting, several members filled out the necessary form to receive a visitor's pass.



MEETING SUMMARY (continued)

Doug also advised the group that the North access road is now closed, and that he would like the group to rethink its current meeting space. The Public Environmental Information Center (PEIC) may be a more desirable meeting location.

Letters of Interest from Tribes

Joe Schomaker told the group about his recent trip to Oklahoma to meet with representatives from the Miami and Shawnee Tribes. To date, he has received two Letters of Intent regarding repatriation of Tribal remains—one from the Shawnee Tribe and one from the Seneca Nation in New York—and expects the Miami Tribe to provide one as well. A Letter of Intent indicates that the Tribe supports the idea of repatriation at the Fernald site. Joe offered to provide the committee members with copies of these letters. Joe stated that he would complete a draft of the repatriation plan in January and make it available for public review. He hopes to have a signed agreement by Spring 2002.

Public Records Feasibility

Doug announced that the Public Records Feasibility Study, to be funded by DOE HQ, was moving forward. Funds have been allocated for two tasks—one to be completed by Florida International University (FIU) and the other to be completed by the Stewardship Committee.

Keith Wilkerson explained that the FIU study is designed to support the Comprehensive Stewardship Plan. Over approximately the next nine months, this study will examine how the specific elements in the stewardship plan would be implemented. This will have some impact on how records are managed, such as how required documentation can be organized and accessed in a useful manner.

The Stewardship Committee project, coordinated by The Perspectives Group, will focus predominantly on long-term community needs and desires regarding records management and availability. Doug noted that he, David Bidwell, and Tisha Patton had visited the Records and Graphics Centers for the site, and that the volume of existing records is enormous. At the Records Center, there are nearly 40,000 boxes in storage. The Graphics Center holds around 100,000 photographic negatives and almost 25,000 videotapes. In addition, the Cultural Resources group has collected a number of important Native American and historical artifacts. There are reportedly even more records from the site stored at Oak Ridge and at the National Archives in Atlanta. By regulation, some records must be retained indefinitely; however, Doug explained that because the 1986 moratorium on the destruction of records had just been lifted, many records are now eligible for destruction. More space is needed at the Records Center, but the staff recognizes that a process is needed to determine what will be destroyed and what will be kept. It was acknowledged that public opinions on what to retain are likely to differ from those of DOE or Fluor. Pam Dunn suggested that the DOE should have a records commission that would approve these decisions.

Doug reviewed the steps to complete this study. The first step is to research the issues surrounding records retention at the site and identify any interesting examples of other sites or agencies that have faced similar challenges. The next step is to get input from the community regarding its records and information needs—what the community would like to have available and preferences for how it should be made accessible. To get this input, a public workshop similar to the Future Fernald workshop will be held at the Crosby Senior Center in February or March of 2002. Pam Dunn warned that because weather is unpredictable at that time of year a backup date should be planned. Steve Depoe suggested that this workshop be used to get more feedback on the draft stewardship plan. Committee members asked that attendees of past workshops be invited and supported suggestions that historical preservation groups and students from local high schools and universities be involved.

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Doug requested that the committee members provide mailing lists for those people they believe should be invited. Pam suggested that the invitation to the workshop should include a brief explanation of the feasibility study.

The information generated by these two initial steps will be used to create a comprehensive needs assessment. Based on that needs assessment, the next step is to conduct a design charette involving a group of approximately 25 stakeholders. In the charette, these stakeholders will interact directly with design professionals to brainstorm how a facility could meet identified needs. Although the feasibility study is focused on records, this charette would also consider other potential site uses, such as community education and ecological restoration. After the charette, the design professionals can develop more formal conceptual plans, drawings, and estimated costs for a facility. A final report will capture everything learned during the study and clarify the challenges and questions that lie ahead.

Steve Depoe suggested that this feasibility study be coordinated with other activities, such as the meetings for the Natural Resource Damages Settlement. Steve also suggested that the person in charge of records management for the Ohio Field Office or headquarters attend the next Stewardship Committee meeting. David Bidwell asked the group to contact him or Doug with suggestions for other sites that have addressed records management issues.

Next Meeting Date

The meeting was adjourned at 8:00 pm and the next Stewardship Committee meeting will be held on Thursday, January 10.



ANNUAL RETREAT

Hamiltonian Hotel

Saturday, October 13th, 2001

MINUTES

The Fernald Citizens Advisory Board met from 8:30 a.m. until 3:30 p.m. on Saturday, October 13, 2001, at the Hamiltonian Hotel in Hamilton, Ohio.

Members Present

French Bell
 Jim Bierer
 Lisa Blair
 Sandy Butterfield
 Marvin Clawson
 Lisa Crawford
 Steve Depoe
 Pam Dunn
 Gene Jablonowski
 Graham Mitchell
 Robert Tabor
 Thomas Wagner
 Gene Willeke

Members Absent

Lou Doll
 Jane Harper
 Steve McCracken
 Fawn Thompson

Designated Federal Official

Gary Stegner

The Perspectives Group Staff

Douglas Sarno
 Mildred Charles

Fluor Fernald Staff

Tisha Patton
 Jamie Jameson

There were no members of the public in attendance.

Call to Order

Jim Bierer called the meeting to order at 8:30 a.m.

Remarks and Ex Officio Announcements

Jim stated in his opening remarks that he and several FCAB members attended the 4th Annual Long Term Stewardship Workshop at Grand Junction, Colorado, in July. He reported participants used the Long-Term Stewardship Working Draft Guidance from DOE HQ during an exercise. He also reported that Dave Geiser attended the workshop and used the FCAB's vision statement as a model. Jim went on to say that the following managerial changes have taken place: John Bradburne will now be the Chairman and Chief Executive Officer of Fluor Fernald and Jamie Jameson will replace him as the President.

Tom Wagner stated that he and Marvin Clawson attended the SSAB conference in August and that it was a very productive meeting. The primary agenda at the meeting was for each of the representatives to share how their boards operated. He also noted that the FCAB has agreed to host the next SSAB conference, which will be held in the spring. Doug Sarno informed the members that he has visited several hotels in the downtown area and is waiting to hear from them on availability.

Gary Stegner stated that approximately 14 members from the National Academy of Sciences are planning to visit Fernald on November 1st and will meet with stakeholders during a public information meeting that evening.

Doug Sarno led discussion of topics for the retreat and Jamie Jameson, the new President of Fluor Fernald attended the afternoon session of the retreat.

I. Self-Evaluation (*What have we done well? What should we improve?*)

Keep

- Timely on Addressing Issues
- Focus on LTS
- Limited Committee Structure
- Monthly Meetings
- Relationships with other SSAB
- Relationship with DOE
- Solid Core of Members
- Good Participation by members
- Good food at meetings
- Consulting/ Facilitation Services
- Communication
- Openness of Stewardship Committee
- Fluor Support
- DOE – Fernald Support

Improve

- Attendance at Clean-Up Progress Briefings
- Communications: Internal, Site, and Community
- Membership Retainment and Recruitment
- Publicize Successes
- Better Progress Reporting
- Distribute Newsletters from DOE: Closure Chronicles, LTS, Risk and EM Progress
- History/Timelines
- Silos in Depth Knowledge/ Committee and public Workshops
- Tour PEIC

II. FCAB Goals for the Next Year *(What are the keys issues for the site? What are the keys issues for stakeholders? What issues are left undeserved from FHES and CRO? Where can the FCAB be most useful?)*

2002 Topics

- 1) Education Facility and Records Management
- 2) Long-Term Stewardship Planning
- 3) Silos
- 4) Public Information and Coordination

1) Education Facility and Records Management

- Design Charette to develop conceptual understanding of what the building needs to be and how the education center will be integrated with the total site
- Feasibility Study – Information and Records management analysis
- Tour of PEIC
- Tour facilities similar to the education facility
- Tour the Weldon Springs site
- Understanding of basic requirements of a facility to accommodate the desired functions
- Relationship-building with University of Cincinnati, Hamilton County
- Develop an understanding of how these types of facilities are funded, built and managed elsewhere

2) Long-Term Stewardship Planning

- Review the Draft Fernald Long Term Stewardship Plan
 - Are our values incorporated?
 - Is everything there that is needed for the community?
 - Clear idea of LTS management functions and responsibilities
 - Stewards: identify roles, who might be best suited, how to ensure accountability, create a clear picture of desired qualifications of stewards
 - Maintenance of communication with HQ and tracking of national policies and guidance
 - Ensure the implementation of a complete and comprehensive LTS plan
 - Create a clear definition of LTS for Fernald

3) Silos and Waste Pits

- Ensure ongoing communication w/CAT and receipt of reports
- Generate more complete information on Silo 3
- Create a better understanding of the decision process and specific activities
- Develop a detailed timeline of activities
- Ensure the receipt and evaluation of ongoing technical information
- Track current information and progress through monthly briefings
- Ensure full understanding and evaluation of transportation and disposal issues from both a technical and political standpoint
- Ensure the receipt and evaluation of ongoing technical information regarding the waste pits on an as needed basis

4) Public Information and Coordination

- Ensure effective communication with the broader community about key site issues and FCAB activities
- Develop an informative tracking system for site progress
- Find ways to publicize the successful completion of key site remediation activities
- Identify and coordinate with other groups that will be instrumental to achieving the future of Fernald
- Ensure that the FCAB is receiving the latest information on all of the key issues on site through ongoing communication with DOE, Fluor, EPA, and OEPA
- Host the spring 2002 SSAB chairs meeting and tour

III. FCAB Structure *(Should we maintain the full board schedule? Should we maintain the stewardship committee schedule? Set calendar for year.)*

Education Center and Long Term Stewardship

- Stewardship Committee will continue its leadership role. Work will progress at stewardship committee meetings and in specific work sessions and other forums at the determination of the stewardship committee.

Technical Issues

- All major technical issues related to remediation progress will continue to be conducted at the full board level. Special work sessions will be used to augment the FCAB schedule as needed.

Public Information

- The FCAB will use its meeting on December 1 to identify specific public information needs and determine the best approach to meeting those needs.

IV. Membership *(What is our long-term membership strategy? How do we handle the need for expert input? How should we approach the long-term involvement of UC? Should we recruit? How and who?)*

- The FCAB needs to think about recruiting new members from the next generation to ensure continuity of long-term stewardship awareness at the site
- The FCAB needs to recruit members with special areas of expertise in the following areas:
 - Planning/Architecture
 - Ecology
 - Human Health
- Katie Brown and Blain Burton will be invited to meet with the Steering Committee in anticipation of becoming new members at the December 1st FCAB meeting.
- The FCAB requested that DOE pursue the idea of Fernald being designated a "Closure CAB" recognizing the need for continuity and institutional knowledge to complete the CAB's mission in conjunction with site closure.

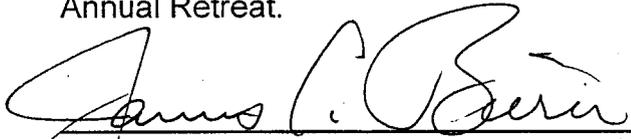
V. Leadership

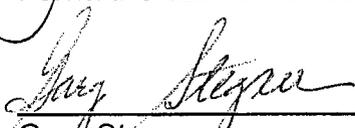
- The current leadership team will remain in place for 2002 Jim, Tom, Gene, Lisa, Bob, and Pam will serve on the Steering Committee. At least three members will need to be present at any given meeting.

Adjournment

Jim Bierer adjourned the meeting at 3:30 p.m.

I certify that these minutes are an accurate account of the October 13th, 2001 Fernald Citizens Advisory Board Annual Retreat.

 12/1/01
 _____ Date
 James Bierer, Chair
 Fernald Citizens Advisory Board

 12/1/01
 _____ Date
 Gary Stegner
 Deputy Designated Federal Official



FULL BOARD MEETING
Public Environmental Information Center

Saturday, January 12, 2002

DRAFT AGENDA

8:00 a.m.	Continental Breakfast
8:30 a.m.	Call to Order
8:30 – 8:45 a.m.	Chair's Remarks and Ex Officio Announcements
8:45 – 9:45 a.m.	Current Remediation Issues, Silos, Efficiency Efforts
9:45 – 10:00 a.m.	Break
10:00 – 11:15 a.m.	Budget and Priority Issues for FY 2006 Planning
11:15 – 11:45 a.m.	Update and Planning for Public Records FS
11:45 – 12:00 p.m.	Public Comment
12:00 p.m.	Adjourn



**FERNALD CITIZENS ADVISORY BOARD
2002 CALENDAR AS OF DECEMBER 10, 2001**

4062

Time and Location of Meetings (unless otherwise noted):

DOE Public Briefing Meetings, Tuesdays, 6:30 p.m., Services Building Conference Room
Stewardship Committee Meetings, Thursdays, 6:30 p.m., PEIC
Full FCAB Meetings, Saturdays, 8:30 a.m., PEIC

JANUARY 2002

10 Stewardship Committee Meeting
12 Full FCAB Meeting
31-2/2 SSAB Groundwater Workshop

FEBRUARY 2002

12 DOE Monthly Progress Briefing
14 Stewardship Committee Meeting,
16 Full FCAB Meeting

MARCH 2002

13 Public Records Workshop
14 Stewardship Committee Meeting
16 Full FCAB Meeting

APRIL 2002

09 DOE Monthly Progress Briefing
11 - 13, SSAB Chairs Meeting
18 Stewardship Committee Meeting
20 Full FCAB Meeting

MAY 2002

14 DOE Site Tour
16 Stewardship Committee Meeting
18 Full FCAB Meeting

JUNE 2002

11 DOE Monthly Progress Briefing
13 Stewardship Committee Meeting
15 Full FCAB Meeting

JULY 2002

*10 Stewardship Committee Meeting, *Wednesday*
*11 Full FCAB Meeting, *Thursday*

AUGUST 2002

13 DOE Monthly Progress Briefing
NO FCAB MEETINGS SCHEDULED

SEPTEMBER 2002

12 Stewardship Committee Meeting
14 Fernald Citizens Advisory Board Retreat

OCTOBER 2002

08 DOE Monthly Progress Briefing
10 Stewardship Committee Meeting
12 Full FCAB Meeting

NOVEMBER 2002

14 Stewardship Committee Meeting
16 Full FCAB Meeting

DECEMBER 2002

10 DOE Monthly Progress Briefing
NO FCAB MEETINGS SCHEDULED

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MEMORANDUM

DATE: December 28, 2001
TO: FCAB Members
FROM: Doug Sarno
RE: DOE LTS Plan

Attached is the draft version of DOE's LTS Strategic Plan which is aimed at guiding DOE's LTS activities for the next five years. Comments are due to HQ by January 29 and we will discuss this document and develop our recommendations at the January 10 Stewardship Committee Meeting. Please review the document in preparation for that meeting. We will distribute a short overview of issues prior to the meeting.

Department of Energy Long Term Stewardship Strategic Plan

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Note to Reader

Thank you for reviewing this initial draft of the Department of Energy's Long Term Stewardship Strategic Plan. I look forward to working with all of you in developing a Plan that effectively guides the Department's long-term stewardship effort for the next five years. Nine Federal Department of Energy employees at a Strategic Planning Meeting held November 5-6, 2001 developed this draft Plan. Input from a variety of additional sources was also incorporated including: comments on an earlier distributed draft strategic plan, programmatic and strategic planning comments from State and Federal regulators, local and Tribal governments representatives, site-specific advisory boards and Department of Energy and contractor employees.

This draft DOES NOT represent the view of the Department and is rather an attempt to compile the work of many parties interested in long term stewardship. The draft Plan contains a "Comment" section to summarize differences of opinion or ongoing policy/legal issues that may require special attention.

In addition, the draft strategic plan is not related to the ongoing Environmental Management Assessment, although it should be useful in determining some EM goals in the near term. Our intention is to produce a strategic plan that outlines the Department's efforts over the next five years to ensure that current long-term stewardship obligations continue to be met and the creation of future liabilities are minimized. Therefore this plan is focused on the integration of long-term stewardship into existing Departmental systems and processes. If successful this effort will allow us to better address the longer-term issues.

Please pay special attention to the strategies (and particularly) the measures in the plan. It is critical that we produce a broad plan that provides the Department an aggressive path forward but that is also measurable and implementable. Because this is a Department-wide Plan we have not (yet) identified roles and responsibilities (and may have to do so in a companion or follow on implementation plan).

This draft (version 1.0) will be circulated within the Department and to interested national intergovernmental and stakeholder groups for comment. Comments on this version are due by January 29, 2002. Version 2 of the Plan will be released for review and comment by February 28, 2002 and a final Plan issued by June 30, 2002.

Please forward all comments to:

Gregory Sullivan, EM-51
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Tel 202 586-0771, Fax 202 586-1421
Greg.Sullivan@em.doe.gov

Thank you again, in advance for your time, attention and comments on this draft. Please do not hesitate to contact me if you have any questions.

Sincerely,

Dave Geiser
Director, Office of Long-term
Stewardship

Mission

The Department of Energy's Long Term Stewardship mission is to manage the residual risks and reduce future environmental liabilities associated with DOE operations to protect human health and the environment, sustain natural and cultural resources, and enhance the use of DOE land and facilities for the public good.

Comment

This mission statement focuses on the management of residual risk and reduction in environmental liability as the mission but recognizes the link to a broader mission of protecting and sustaining a land, cultural and natural resources management effort. Commentors expressed concern that too much emphasis beyond a 'residual risk management' focus would overlap with other federal agency missions or become difficult to manage internally and externally.

Vision

DOE is the recognized national leader in incorporating sound stewardship practices into all aspects of program planning and implementation. We reduce our environmental liabilities by promoting the vitality of human, natural and cultural resources over multiple generations. We accomplish this vision by:

- Reducing the footprint of the DOE complex, consistent with the Department's national security mission, and returning land to its highest and best use;
- Implementing monitoring and maintenance measures to prevent the migration and uptake of residual contamination;
- Restoring public trust in DOE through a cooperative partnership with stakeholders; and
- Incorporating long-term stewardship principles into all DOE planning and operations.

Comment

Other suggested items to include: science and technology role, achieving efficiencies and measurable results, iterative nature of LTS, LTS contingency planning (plan for fallibility).

Major Goals

This section will immediately follow the vision and mission statements to provide a short discussion of the three goals and why we chose to organize the plan along those three goals

Understanding the Structure of this Report

This page will briefly describe the organization of the Plan. It will include a description of the use of a situation analysis, external factors, and the GPRA format (a set of goals, objectives, measures, and strategies, and be aligned with the Department's current approach for strategic planning and performance based management) to frame the plan.

Seven Principles Were Used to Develop This Plan

In an October 26, 2001 Memorandum Jessie Hill Roberson, Assistant Secretary for Environmental Management reaffirmed the role of the Executive Steering Committee, representatives from DOE field Offices and headquarters Program Secretarial Offices, to prepare a strategic plan for the Department's long term stewardship effort. The memorandum further directed the strategic plan to be prepared using the draft seven principles developed by the Executive Steering Committee. The draft principles are:

1) Long-term Stewardship is a Department-wide responsibility

As a whole, the Department is committed to the protection of human health and the environment in all of its actions. To ensure success, all Departmental elements must consider long-term stewardship as an integral part of the Department's mission.

2) Long-term Stewardship is a component of all aspects of cleanup decision making

It is the responsibility of sites and Headquarters offices to ensure that long-term stewardship is considered in each decision that impacts DOE cleanup. This responsibility extends from the identification of remediation alternatives, remedial design, construction, operation and through all relevant decisions made over the lifetime of the hazards.

3) The Department is a Trustee of natural and cultural resources

Residual hazards should be managed within the larger context of Federal land management, which includes trusteeship for ecologically and culturally important areas. The Department will manage these hazards in accordance with applicable regulatory requirements.

4) Long-term Stewardship should be incorporated into relevant Departmental policies, practices and systems

Long-term stewardship will be most effective when integrated into existing Departmental processes and management systems. As these DOE policies, practices, and systems (such as Life Cycle Asset Management and Environmental Management Systems) are reviewed and/or implemented, a broad range of long-term stewardship activities and needs may be incorporated. This will facilitate the establishment of long-term stewardship as an essential element of all facets of Departmental missions.

5) An inter-generational approach is needed for Long-term Stewardship

Long-term stewardship is an enduring commitment by the Federal Government. Due to the longevity of hazards, the ramifications and costs of current and future decisions and missions will be experienced by generations to come. As these generations' land use practices and local community structures change over time, current assumptions that guide Departmental policy may require reevaluation and modification.

6) Long-term Stewardship policy must provide a consistent framework and acknowledge sites' need for flexibility

Although a consistent framework for long-term stewardship is required for complex-wide management, Headquarters and sites must be responsive to site-specific requirements (local, Tribal, state, regional, and federal). Therefore, Departmental long-term stewardship policy must be sufficiently flexible to enable sites to perform necessary long-term stewardship functions within their individual regulatory frameworks and communities.

7) The involvement of stakeholders and state, local, and Tribal governments is critical to Long-term Stewardship

The Department has the responsibility to consult with these affected parties on long-term stewardship issues. Ongoing interaction and exchange increases public awareness. In turn, heightened public awareness facilitates informed decision-making and increases the likelihood of successful implementation of long-term stewardship.

Setting the Stage: A Situational Analysis

This page will be a factual accounting of the current EM cleanup, the number of sites potentially facing LTS - some of which are scheduled to come into the Department - the release of the NDAA report and the LTS study. This should frame the Department of Energy's current situation so that the reader can place the rest of the plan in the context (this section may draw heavily from the NDAA Report to Congress).

The Potential Impact of External Factors

This page will describe current issues that may be outside the exclusive control of the Department that may influence the scope of the plan (i.e., the war on terrorism, Congress, regulatory changes, science and technology developments, etc.). This section may be based in large part on the Department of Energy Strategic Plan, as well as input from EM-51, Program Secretarial Officers and Field Office personnel.

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Goal I Building Long-Term Stewardship into the Way the Department Does Business

Objective 1.0 Improve the Department's Understanding of Long Term Stewardship Issues

Strategies:

- 1.0.1 Identify and utilize existing Departmental communication, education and training services to inform Department of Energy and contractor employees about long-term stewardship issues, principles and new developments.

Potential Measures:

- All Program Secretarial Office headquarters management staff briefed by end of FY02.
- Long Term Stewardship is an agenda item in Departmental reviews by FY03.
- Develop Department of Energy long term stewardship training program by FY02.
- Education and training opportunities are provided and attended by appropriate personnel.
- Long Term Stewardship is incorporated into Department of Energy's mission statement by FY03.
- Long Term Stewardship is incorporated into all Program Secretarial Officers program planning guidance by FY03.
- Long Term Stewardship website is maintained on the Department's homepage by FY03.

Comment

Commentors concerned that LTS is an activity to be performed by PSOs to maintain PSO mission and should not be incorporated into the PSO mission statements themselves (rewritten to address PSO program planing).

Objective 1.1 Incorporate/Integrate Long Term Stewardship into the Department's Planning Systems (e.g., strategic, 10-year, land use...)

Strategies:

- 1.1.1. Determine and prioritize planning processes and systems for incorporation of Long Term Stewardship principles.
- 1.1.2. Integrate Long Term Stewardship into the Department's higher level plans on a priority basis
- 1.1.3. (a) Document site planning approach for Long Term Stewardship
(b) Complete site planning guidance for Long Term Stewardship
- 1.1.4. Improve coordination of Department of Energy and community land use planning (not mission-related).
- 1.1.5. Coordinate development of Department of Energy -wide definition of Long Term Stewardship and issue resolution through the Field Management Council process.

Potential Measures:

- A Field Management Council approved, Department-wide, definition of long term stewardship by end FY02

- Long Term Stewardship is accounted for in all new remedial action closure documents by FY03.
- Long Term Stewardship accounted for in all new Department of Energy National Environmental Policy Act guidance documents by FY03.
- Long Term Stewardship accounted for in all new Department of Energy National Environmental Policy Act documents by FY04.
- All relevant chapters of Departmental corporate plans integrate a discussion of long term stewardship by FY04.
- Long Term Stewardship is accounted for in all major project design documents by FY04.
- Long Term Stewardship specifically cited in all site/institutional 10-Year Plans.
- Long Term Stewardship accounted for in site land-use planning and programs and procedures by FY05.

Comment

Reflects comments that use of FMC for definition of LTS may be an objective (not measure) with related multiple possible measures to prepare FMC for such a role. Concern that "all" can be interpreted to mean revisit/reopen past decision documents – each measure could be rewritten to state "new" "for the period of this plan" or "from 2003 to 2008" or otherwise have preamble clarify that measures are prospective.

Objective 1.2 Support Long Term Stewardship in Allocation of Resources

Strategies:

- 1.2.1 (a) Improve definition of long term stewardship for resource allocation purposes
(b) Provide guidance and tools
- 1.2.2 Improve annual and life-cycle cost estimates for long term stewardship activities
- 1.2.3 Establish transparent and auditable budget for long term stewardship funding
- 1.2.4 Include improved understanding and visibility of long-term stewardship life-cycle costs (e.g., Government Management Reform Act (GMRA), Environmental Liabilities Audit Report; annual financial statement)

Potential Measures:

- All sites can clearly identify the cost of long-term stewardship by FY03.
- Long-term stewardship activities and costs are identifiable in Field Office budget requests to Program Secretarial Officers by FY04.
- Long-term stewardship activities and costs are identifiable in PSO budget requests forwarded to the Chief Financial Officer by FY04.
- Long-term stewardship activities and costs are identifiable in Department's budget request submitted to Office of Management and Budget by FY04 (and thereafter).

Comment

Some commentors suggest that activities and funding should be merely "identifiable" in budget (not separate line items) as some PSOs may cover costs as overhead. In addition, the auditability of LTS funding/ budgets raised concerns.

Objective 1.3 Build Long Term Stewardship into Departmental Policies and Orders

Strategies:

- 1.3.1 Determine and prioritize planning processes and systems for incorporation of Long Term Stewardship principles
- 1.3.2 Integrate Long Term Stewardship into higher level plans on a priority basis
- 1.3.3 Establish collaborative, streamlined approach to incorporate/advance long-term stewardship
- 1.3.4 Evaluate long-term stewardship implications in all Field Management Council actions

Potential Measures:

- Institutional Controls policy is issued by FY02.
- LTS is incorporated into Departmental Order 450.1, "General Environmental Protection Program," by FY03.
- Long-term stewardship is incorporated into Integrated Safety Management guidance by FY03.
- Long-term stewardship is incorporated into Life Cycle Asset Management Order by FY03.
- Long-term stewardship is incorporated into all other relevant policies/orders by FY05.
- All new orders that are relevant contain references to applicable long-term stewardship principles.

Comment

Commentors suggest also integrating LTS into current Order 5400.1 as interim measure before FY03 date for new O 450.1. Commentors suggest a measure to establish a stand-alone LTS policy statement by FY02.

Objective 1.4 Build Long Term Stewardship into DOE Management Systems

Strategies:

- 1.4.1 Determine and prioritize planning processes and management systems (e.g., IPABS, FIMS, FRAM, PDRI, EMS, ISM) for long-term stewardship principles incorporation
- 1.4.2 Integrate long term stewardship into higher level plans on a priority basis
- 1.4.3 Establish collaborative, streamlined approach to incorporate/advance long-term stewardship.

Potential Measures:

- Issue appropriate guidance to ensure incorporation of long-term stewardship into site Environmental Management Systems/Integrated Safety Management Systems by FY03.
- Appropriate long-term stewardship information is incorporated into all data calls for Department of Energy management systems by FY04.
- Long-term stewardship incorporated into site Environmental Management Systems/Integrated Safety Management Systems by FY04.
- Management systems have capabilities to identify long-term stewardship costs and project LTS liabilities by FY05.
- Data necessary to develop the quantitative portion of the annual long-term stewardship report provided by querying existing national databases.

Comment

Commentors recommend self-assessment to measure incorporation into EMS/ISM because few data calls for EMS/ISM. Concern that ISM/EMS does not cover all site requiring DOE LTS (i.e.,

privately owned sites no ISM/EMS, closure sites no EMS) and the other systems may need to be added to measure.

Objective 1.5 Clarify Authority and Accountability for Management of Long Term Stewardship Activities for Federal Employees and Contractors

Strategies:

- 1.5.1 Clarify landlord Program Secretarial Officer (HQ) responsibility for long term stewardship
- 1.5.2 Clarify field organization responsibility for sites in LTS (e.g. LTSM program)
- 1.5.3 Push long-term stewardship principles "down into ranks" in a manner similar to Integrated Safety Management
- 1.5.4 Work effectively with other federal agencies to optimize federal land management

Potential Measures:

- Department of Energy contracts contain consistent clauses clearly establishing their responsibilities for the planning and implementation of long-term stewardship concepts and activities.
- Long-term stewardship roles and responsibilities are incorporated into relevant orders and budget and contracting guidance by FY05.
- Secretary's performance agreements with Program Secretarial Officers reflect long-term stewardship by FY04.
- Program Secretarial Officers' performance agreements with Field Office Managers reflect LTS by FY04.
- Each Operations and Field Office have identified the programs and staff responsible for long-term stewardship planning and implementation in their organization.

Objective 1.6 Manage the Department's Life-Cycle Environmental Liability in a Fiscally Responsible Manner

Strategies:

- 1.6.1 Identify long-term liabilities
 - 1.6.1.1 Deferred maintenance liabilities (utilizing for example the Facility Information Management System)
 - 1.6.1.2 Environmental liabilities (utilizing Chief Financial Officer expertise)
- 1.6.2 Minimize NRDA liability through effective remedies and appropriate land use
- 1.6.3 Monitor long-term stewardship activities to implement timely corrective action
- 1.6.4 Account for long-term stewardship implications in all new operations

Potential Measures:

- The vulnerabilities associated with long-term stewardship are quantified in Department's liability report by FY02.
- Department's long term stewardship liabilities are appropriately identified and reported to the Secretary by FY05.
- Plans for reducing Department's long-term stewardship liabilities are developed and implemented by FY05.
- Department's long-term stewardship liabilities at individual sites decrease over time.

Comment

Commentors suggest making measure regarding liability reduction a continuous improvement measure because of the likely development of new technologies, new standards, etc. In addition, comments that a "decrease" in liability may not be possible but "achieving stability and predictability" may be.

Goal II Effectively Execute, Document and Evaluate Long Term Stewardship Activities at Sites

Objective 2.1 Request and Defend Resources Necessary to Execute Long Term Stewardship Responsibilities

Strategies:

- 2.1.1 Include long term stewardship budget development guidance for Unicall to the President's budget
- 2.1.2 Educate public and regulators on Federal Government and Department's budget process
- 2.1.3 Aggressively pursue alternative long term funding mechanisms for long term stewardship
- 2.1.4 Identify and request personnel needs for long term stewardship in staffing allocation

Potential Measures:

- Office of Management and Budget supports Departments' Long Term Stewardship budget requests beginning in FY03.
- Congressional budget committees recognize and support the importance of long term stewardship beginning in FY04.
- US Environmental Protection Agency and the States support Department's efforts for funding long term stewardship activities beginning in FY04.
- Department's long term stewardship budget remains adequate to protect human health and the environment from residual hazards.
- A clear definition of long-term stewardship is provided in the Integrated Planning, Accountability and Budgeting System baseline and the costs are transparent.

Comment

Some concern that the above measures should maintain focus on the next 2-3 years efforts to bolster support in Congress and that some measures may be outside the scope of DOE control (i.e., whether budget committees recognize and support effort).

Objective 2.2 Define and/or Clarify Long Term Stewardship Requirements

Strategies:

- 2.2.1 Develop an interagency approach for clarifying the regulatory framework for long term stewardship
- 2.2.2 Identify gaps in Departmental directives regarding long term stewardship
- 2.2.3 Develop policy and/or orders necessary to fill the gaps
- 2.2.4 Require and conduct a minimum of 5-year reviews for all closure actions

Potential Measures:

- Approval of a Department-wide definition of long term stewardship by Field Management Council by FY03.
- Department's policies and orders are revised to reflect long term stewardship by FY05.
- Department's budget explicitly incorporates long term stewardship activities by FY05.

Objective 2.3 Ensure Adequate Post-Remediation Protection of Human Health and Environment

Strategies:

- 2.3.1 Work effectively to meet current health and safety requirements
- 2.3.2 Monitor and evaluate the success of long-term stewardship activities
- 2.3.3 Provide appropriate response capability for remedy failures
- 2.3.4 Periodically evaluate whether current health and safety requirements provide adequate protection of human health and the environment

Potential Measures:

- Budget for monitoring engineered and institutional controls for property retained by Department is commensurate with residual risks by FY03.
- Non-Department of Energy landlords accepting land transferred from Department maintain and enforce deed restrictions by FY03.
- Information on residual contamination, its associated risks, and measures in place to protect public health and the environment is available to stakeholders by FY03.
- Program oversight and self-assessment by the Field on a continuous basis beginning in FY 04.
- Ability to respond to remedy failures is available commensurate with residual risks by FY05.
- 100% of closure sites' annual preventative maintenance of protective systems is completed on time.
- Annual number of contaminant uptake incidents per number of closure covers is steady or declining.
- Complete reviews of remedy effectiveness in accordance with schedules imposed by Records of Decision or applicable permits.
- Ensure that remedy review reports are made available to all interested parties.

Comment

Concern with measure regarding non-DOE landlord maintenance of I/CS that non-DOE landlords will not assume this responsibility without funding. Suggest additional measure to ensure non-DOE landlord that federal commitment to monitoring, or assisting in monitoring.

Objective 2.4 Develop Organizational Structure and Core Capabilities to Perform Long-Term Stewardship Efficiently

Strategies:

- 2.4.1 Identify core capabilities for effective long-term stewardship
- 2.4.2 Assess Department of Energy capabilities vs. requirements
- 2.4.3 Fill the gaps
- 2.4.4 Establish organizational / personnel succession planning
- 2.4.5 Establish organizational framework for managing long-term stewardship at Headquarters and in the field

Potential Measures:

- Training program developed by FY 02.
- Core capabilities to monitor and maintain engineered and institutional controls, commensurate with risk, are in place by FY03.
- Landlord sites identify long-term stewardship roles and responsibilities for all managers and implement appropriate training by FY03.

- LTS roles and responsibilities are communicated to all employees (HQ and Field) through appropriate training by end of FY03.
- HQ/Field roles and responsibilities for long-term stewardship budgeting and activity implementation are clearly established and documented by FY03.
- The core capabilities are identified in Departmental annual resource allocation planning.

Objective 2.5 Optimize Use of Department Managed Lands

Strategies:

- 2.5.1 Conduct gap analysis on land transfer process
- 2.5.2 Improve land transfer based on gap analysis
- 2.5.3 Incorporate long term stewardship into annual utilization survey
- 2.5.4 Collect and analyze information on Department's current land use planning
- 2.5.5 Review and reevaluate land use goals for the Department
- 2.5.6 Aggressively pursue transfer of non-mission related land out of the Department
- 2.5.7 Encourage reuse of brownfields for (DOE and non-DOE) industrial purposes.

Potential Measures:

- Site land use plans include measures to reduce Department of Energy footprint by FY04.
- General DOE-wide criteria for determining best use of DOE land are established by FY04.
- Site land use plans identify the best use for DOE property, using DOE criteria but accounting for site-specific circumstances, by FY05.
- Number of acres transferred to non-DOE entity for open space.
- Number of acres transferred to non-DOE entity for industrial re-use.
- For 100% of lands with a "Determination of Excess," DOE land transfer required reports, notations, and announcements (except quitclaim deed) are initially drafted within 18 months of the declaration.

Comment

Commentors concerned that any changes in federal land use occur with appropriate public input.

Objective 2.6 Optimize Management of Natural and Cultural Resources

Strategies:

- 2.6.1 Identify requirements for management of natural and cultural resources
- 2.6.2 Identify gaps
- 2.6.3 Fill the gaps
- 2.6.4 Monitor and evaluate natural and cultural resource management activities

Potential Measures:

- Define measures to be incorporated into site Integrated Safety Management/Environmental Management Systems and remedial and post closure decisions by FY 03.
- Natural and cultural resource management and protection is integrated into all remedial and post-closure decisions by FY03.
- Department's commitment to optimizing natural and cultural resources is developed in partnership with stakeholders by FY04.

- Natural and cultural resource protection measures are incorporated into site Integrated Safety Management/Environmental Management Systems by FY05.
- Closure sites having threatened/endangered species habitats have no irrecoverable declines in associated populations.
- Each site has a natural and cultural resource management plan, or has documented the lack of a need to have one.

Comment

Commentors concerned that some DOE sites may not be required to use EMS. Concern about DOE attempts to protect resources on land that it no longer owns and whether current practice (policy) is to disclose of sensitive natural or culture resources and transfer maintenance responsibility to new non-federal owner.

Objective 2.7 Collect and Maintain Appropriate Information Regarding Long Term Stewardship

Strategies:

- 2.7.1 Identify information requirements and needs
- 2.7.2 Identify information gaps
- 2.7.3 Fill in gaps
- 2.7.4 Monitor and evaluate LTS information management activities
- 2.7.5 Coordinate long-term stewardship information management developments with the Department's essential records management activities

Potential Measures:

- Department's natural and cultural resources are inventoried and at-risk resources are targeted for special protective measures by FY03.
- Define the "appropriate [long term stewardship] management information systems" by FY04
- 50% of records of contamination, closure and post-closure plans, and monitoring and maintenance plans are managed in an appropriate management information system by FY10.
- 100% of records of contamination, closure and post-closure plans, and monitoring and maintenance plans are managed in an appropriate management information system by FY15 (AL).

Comment

Commentors concerned that key initial strategy should be defining "LTS record" before trying to quantify a percentage of records managed (i.e., health records, employees records, epidemiological records or other potential Privacy Act records that maybe necessary for LTS).

Goal III Building a Sustained Capability Over Multiple Generations

Objective 3.1 Ensure Process in Place for Education, Outreach, and Engagement

Strategies:

- 3.1.1 Identify roles (DOE, state, Tribal, local government) each interested party will play for sustained capability
- 3.1.2 Baseline the knowledge and skills required for sustained capability
- 3.1.3 Develop the training for and qualifications of the stewards

Potential Measures:

- Number of Full Time Equivalents by job classification needed for LTS is determined by FY05.
- Additional FTE slots, commensurate with need, are filled by FY06 and thereafter as appropriate.
- Appropriate skills training programs are in place by FY05.
- DOE has made available to local communities a long-term stewardship curriculum for grades K-12.

Objective 3.2 Pursue Long-Term Funding Options

Strategies:

- 3.2.1 Identify funding vulnerabilities and develop strategies to cover them
- 3.2.2 Advocate alternative funding mechanisms for federal, state, Tribal, and local ongoing activities
- 3.2.3 Pursue legislative change that allows for funding options beyond the federal budget cycle

Potential Measures:

- Department identifies viable alternative funding paths by FY03.
- Negotiations on alternative funding paths are initiated with congressional appropriators by FY04
- Legislative changes enabling alternative LTS funding options passed in FY05.
- Changes to internal DOE funding processes agreed to for implementation in the FY06 budget request.

Objective 3.3 Achieve Sustainable Information Management

Strategies:

- 3.3.1 Ensure maintenance of and updates to existing databases
- 3.3.2 Assure sustained capability for access, retrieval, and comprehension of the data
- 3.3.3 Create redundant archives consistent with appropriate consideration of security concerns
- 3.3.4 Perform needs assessment for long term stewardship information management needs (i.e., what is needed in addition to the CERCLA Administrative Record)

3.3.5 Develop Department-wide approach to records management including records epidemiology studies, etc.

Potential Measures:

- Modify schedule for maintenance of records by FY 04.
- System parameters are defined by FY05.
- System initiated by FY06.
- System complete by FY10.

Comment

Commentors suggest a continuous evaluation measure because of the development of new technologies, and new information needs (i.e., systems are never "complete").

Objective 3.4 Effectively Utilize Advances in Science and Technology to Improve Sustainability

Strategies:

- 3.4.1 Perform gap analysis to identify science and technology needs and construct a long-term stewardship science and technology roadmap
- 3.4.2 Replace existing long term stewardship systems with new technologies when cost effective
- 3.4.3 Improve scientific basis for understanding the impacts on human health and the environment from residual contaminants

Potential Measures:

- Sustainability parameters are defined in completed long-term stewardship science and technology roadmap by FY03.
- Science and technology budget incorporates long term stewardship sustainability needs by FY04.
- Feedback links between site-specific long-term stewardship technical problems, monitoring and maintenance needs, etc. and overall science and technology program is established by FY05.
- Number of long term stewardship corrective actions decline annually after FY10.

Comment

Commentors concerned that measures for S&T are not aggressive enough and should reflect how EM-50 measures focus group, OST and other performance.

Jesse Roberson Response:

Concerns Expressed by Chairs of Local EM SSAB at August Meeting and Response of EM Assistant Secretary

EM-Top to Bottom Review

Concern: The Chairs of the local EM SSABs are concerned that the process for stakeholder involvement in the top-to bottom review is undefined. The local SSABs would like to have the opportunity to provide substantive input into the review. The EM top-to-bottom review should augment, rather than duplicate, ongoing site reviews.

Response: As you are aware the EM top-to-bottom review is one of my highest priorities. I am initiating this EM assessment by meeting with each of my field managers to gather information and explore strategic and tactical options that have the potential of advancing the goals and mission of the program and making progress on cleaning-up and closing sites. In addition, I have established a technical team that will visit the EM sites to further explore opportunities that will advance these goals.

I am interested in receiving suggestions from your local board as to how EM can accelerate the cleanup work and reduce life cycle costs at your site. I understand that the SSABs possess valuable institutional knowledge of EM sites and play an important role in this process by providing substantive recommendations to sites directly. I need your views and suggestions, as well as others, to be successful in my review. Local SSABs are encouraged to provide suggestions for accelerating cleanup work and reducing life cycle costs at your site to your Site Manager. The Site Manager will share these suggestions with me and with my technical team.

As my evaluation of the EM program progresses, I will continue to seek input from our stakeholders including the local EM SSABs. I look forward to working with you and will keep you informed and updated as we proceed together in this important endeavor. I am also aware of a number of ongoing site reviews and am reviewing the focus and results of these reviews to see how they can best be incorporated into the EM top-to-bottom assessment.

EM Budget

Concern: The Chairs noted that insufficient and unpredictable funding for EM projects ultimately leads to delays in project completion and

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adds to overall project life-cycle costs. The Chairs also expressed concern that funding will be inadequate as sites move from the study/planning phase to construction of remedies that involve heavy capital investment, i.e., constructing treatment and remediation facilities.

Response: EM recognizes the importance and timeliness of meeting our cleanup responsibilities and fulfilling our commitments to the communities that have contributed, and many of which continue to contribute, to our national security. Protecting the health and safety of our workers and the public will continue to be my highest priority. However, the President in his budget request, and the Congress when appropriating funds, must balance environmental priorities with other important national priorities, including defense, health care and education. I think it is obvious that our EM budget challenges will be even greater in light of the recent events.

I am hopeful that the top-to-bottom review of the EM program will provide opportunities where closure of sites can be accelerated and life-cycle program costs reduced. Your help in identifying and ensuring implementation of such opportunities is needed.

Stakeholder Involvement

Concern: The Chairs stressed the importance of continued early and meaningful stakeholder involvement in EM planning and decision making processes and requested clarification regarding DOE's expectations of the local SSABs.

Response: I am committed to maintaining open, responsive, ongoing, two-way communication, both formal and informal, between EM and our stakeholders. Obtaining the diverse opinions, perspectives, and values from our various stakeholders enables us to make better-informed decisions, improve the quality of these decisions through collaborative efforts, and build mutual understanding and trust between the EM program, the public we serve, and the individual communities affected by our cleanup efforts.

As to the local SSABs, I expect that the local boards will continue to play an important role by advising the site manager in a timely manner on environmental management issues affecting their community. Local boards should develop their annual work

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plans in cooperation with the Site Manager with input from the regulators. I anticipate that all local boards will continue to provide advice and recommendations to their respective Site Manager on the following key issues: future land use or "end state;" cleanup standards to ensure protection of human health and the environment for this land use; and stewardship plans for long-term protection after completion of active cleanup.

Long-Term Stewardship

Concern: The Chairs emphasized the importance of considering long-term stewardship early in the decision-making process for selection of cleanup remedies and in the development of site closure plans. Long-term stewardship must be addressed in the top-to-bottom review since this affects life-cycle costs.

Response: I recognize the importance of early planning to ensure that the cleanup remedies selected and implemented at our sites remain protective of human health and the environment after completion of active cleanup. I also appreciate the need to consider the life-cycle costs of stewardship in considering cleanup remedies. I am in the process of evaluating the status and focus of the Department's long-term stewardship efforts. This includes understanding stakeholder group activities, reports and comments. It also includes clarifying roles and responsibilities within the Department for long-term stewardship.

DOE FERNALD- OHIO EPA Comments on DOE Top to Bottom Review

1. What is working well within the EM program?

- At Fernald most projects are running very successfully. Specifically soil excavation, OSDF operation, D&D and Waste Pits Remedial Action Project are demonstrating success, improving efficiency and completing tasks safely. Fernald has successfully utilized new technologies and the resources provided by the Office of Science and Technology to improve the quality and productivity of cleanup operations.
- As always, a key to many of the successes at Fernald is the stakeholder outreach program (FCAB, etc). Fernald's stakeholder involvement program ensures that projects get started with a minimum of delay and usually with significant support from the public.
- The relationship between DOE, FF, USEPA and Ohio EPA is one of respect and mutual desire to attain the cleanup of Fernald in the most protective, efficient and timely manner possible. Though technical disagreements occur, the shared goal of site cleanup remains constant. Regulators and the site are able to quickly address proposed field changes to ensure projects are not delayed: Regulators frequently work with site requests to expedite review times, divide work packages, and start work early in the process in order to minimize impacts to the remediation schedule from regulatory oversight. Ohio EPA's frequent on-site presence and working relationship with personnel in the field allows for more timely and efficient actions by the agency in response to requests from DOE and its contractor.
- The NRDA process being implemented at Fernald has provided a method to address natural resource damages while eliminating litigation and detailed damage assessments. This process will allow for the development of a post-remediation site that is an asset to the community, while meeting DOE's legal obligations for resource restoration.

2. What is not working well within the EM program?

- DOE's efforts at fixed price contracting/privatization at Fernald have lead to significant project delays and contractor defaults. This contracting strategy failed under two separate projects within Operable Unit 4. The result was the contractors leaving the project and the site needing to completely regroup, substantially setting back the remediation schedules. Probably most significantly, the problems with the contractors were evident early on but, do to contract language, action against the contractor was delayed and prolonged leading to the loss of additional valuable time.
- Operable Unit 4 has experienced numerous project difficulties ranging from technical failures to contractors leaving the project. This project addresses some of the most dangerous material at Fernald but has been plagued with difficulties. Significant

contractor staff turnover has occurred throughout the project's history. Additionally, at times it appears DOE and its contractors seem to be working on too many fronts to provide the proper oversight and technical expertise to each problem. Other times it appears that DOE and its contractors are reaching decisions on latter portions of the project when problems early in the process have yet to be resolved. These early problems directly impact the decisions on latter processes that may have already been made/designed/constructed thus resulting in the need for additional changes. Finally, as discussed above, this project has encountered significant contract problems. The issue is not simply that the contractor failed to complete the job but the inability of DOE to see the problem developing and to take early action to remedy it.

- Constant, real or potential, budget fluctuations continue to distract efforts. It's extremely difficult to keep the site, regulators and stakeholders focused on the goal. With constantly changing budgets, it is also difficult to plan and conduct work efficiently.

3. What changes or fresh approaches, if implemented, could result in a more efficient EM program (complete sooner, less costly) that is protective of human health, safety and the environment?

- Continue implementing new technologies that allow for expediting/improving the remediation of the site. Focus efforts on at least a portion of the efforts of OST on specifically addressing the needs of Closure sites. Closure sites obviously require a more quick response and probably innovative uses of existing technologies. These investments can serve future cleanup efforts at the larger DOE sites.

- A focus on long term stewardship is going to be paramount to the successful closure of these sites. As demonstrated by the current debate in Missouri, successful closure is not just putting the last load of dirt on the disposal cell. Success is measured in the acceptance of the completed site by both the regulators and the stakeholder community. All parties must agree that the implemented remedies will be monitored and remain protective into the future. This raises complicated issues of funding, authority, information management, contingency planning, etc. that need to be resolved. DOE needs the closure sites to lead the way and demonstrate this success.

- Work to get DOE project personnel into the field more. The only way to fully grasp the context of the project being implemented is to see and walk it. DOE personnel having a better day to day understanding of project activities, field conditions and current challenges, will help to improve the efficiencies of remediation and expedite needed actions.

- While providing incentives to contractors and workers, DOE needs to remember that they are the site owner and responsible party at Fernald.



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FERNALD COMPLETES FIRST WASTE CELL

Cincinnati, Ohio, Dec. 17, 2001 – Fernald cleanup workers have completed construction of a multi-layer final cover for the first of seven cells for the disposal of contaminated soil and demolition debris from Fernald's former uranium processing facilities.

The Department of Energy (DOE) and its cleanup contractor, Fluor Fernald, are constructing an On-Site Disposal Facility (OSDF) as part of the site's long-term cleanup strategy for waste disposal. The strategy is a balance of on-site disposal of larger volumes of waste with lower contamination levels and off-site transportation and disposal of smaller volumes of waste with higher contamination levels.

The OSDF is designed to place up to 2.5 million cubic yards of waste; approximately 85 percent will be soil and 15 percent will be demolition debris. When complete, most of the OSDF will be located aboveground to preserve the natural underlying clay layer and protect the Great Miami Aquifer. Each cell will be approximately 400 by 800 feet and have its own liner system made of multi-layer leak detection and leachate (wastewater) collection systems.

The 8.75-foot thick Cell 1 final cover contains layers of natural clay and man-made geosynthetic (plastic) liners that were built over a one-foot thick contouring layer. Workers used 110,000 tons of stone and rock in the bio-intrusion barrier layer to prevent animals from burrowing and trees and other vegetation from taking root.

For Fernald engineers and cleanup workers, Cell 1 provides an excellent prototype for the remaining waste cells. "The design of the waste cells is based on years of study and feedback from site neighbors, regulators and experts in the waste disposal field," said Rob Janke, DOE-Fernald Soils Remediation project manager. "We've learned a great deal during each phase of Cell 1's construction that we are applying to the rest of the project."

- More -

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A team of experts on disposal cell engineering, design, construction and monitoring has helped Fernald define monitoring requirements and select technologies to monitor the cell's performance and structural integrity over time. The DOE Office of Science and Technology has also provided over a million dollars for the design of waste cell monitoring technologies. Inside Cell 1's final cover, Fernald has installed various monitoring devices to check the performance of the cap. Stainless steel target plates have been placed at multiple locations and elevations as a measurement tool. Using ground penetration radar, technicians can see inside various layers in the final cover, similar to an x-ray. If there is a settlement or shifting within the cell, the movement of the imbedded plates will alert technicians of a potential problem. Similar to target plates, workers have installed settlement plates at various locations within the final cover. Fernald is also employing submersible pressure transducers with thermocouplers in the drainage layer to monitor pressure levels. To ensure the health of the native grasses and wildflowers that will cover the OSDF, technicians will use the information collected from water content and temperature sensors in the vegetative layer.

In September 2000, Cell 1 reached its design capacity of 314,000 cubic yards of material. Workers are currently seeding and installing erosion control matting on Cell 1's final cover. By the time Fernald closed the OSDF for the 2001 winter season, Cell 2 was 60 percent filled and Cell 3 was 25 percent filled. Since 1997, approximately 635,000 cubic yards of impacted material has been placed in the OSDF. Phased construction of the OSDF will continue through 2006.

On Dec. 18, DOE and Fluor Fernald will offer tours of the waste disposal facility to the media at 1:00 p.m. Contact Dave Hinaman, Fluor Fernald Public Affairs, for more information about the media tour at 513-648-4899 or david.hinaman@fernald.gov. Visit Fernald's Web site (www.fernald.gov) for more information about the OSDF and other cleanup activities.

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Photos available at: <ftp://ftp.fernald.gov/Public/Press/OSDF/>
BetaCam SP video footage available upon request.

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St. Louis Post-Dispatch: Uphill battle
Published in A-section on Sunday, November 18, 2001.
By Bill Lambrecht
Post-Dispatch Washington Bureau

WASHINGTON - As the cleanup of the radioactive site winds down, Missourians want to know the federal government's plan for safeguarding the tomb of toxic waste. And they can't seem to get answers.

Late next year, the Department of Energy will conclude 16 years of cleanup at Weldon Spring and leave behind a tomb of dangerous wastes visible on a clear day from the Arch, 30 miles east.

The government will have spent \$900 million for remedies, including burial of 1.5 million cubic yards of radioactive materials and chemicals in the seven-story hill that will stand as a monument to the bombmaking era of the 20th century. In the 1940s the site was used to make bombs and in the 1950s to process uranium for weapons.

But as the end of the cleanup project draws near, the federal government is doing far less to plan for the future of Weldon Spring than the state of Missouri and St. Charles County residents would like.

Less than a year from finishing the project, the Energy Department has only a draft "stewardship plan" for Weldon Spring's future, a document that ignores recommendations on safeguarding waste sites by the National Academy of Sciences.

The Energy Department's plan fails thus far to spell out clear lines of authority for surveillance, for testing surrounding water for contamination and generally for overseeing a site that will contain dangerous material for centuries.

The plan calls for an Energy Department office in New Mexico to be in charge but another office in Colorado to maintain the site. Missouri officials say they were told that still another Energy Department office in Tennessee would have a role.

"Management muddle" was how Stephen Mahfood, the director of Missouri's Department of Natural Resources, referred to the government's sketchy plan in a recent letter to the Energy Department.

Nor has the Energy Department mapped out a long-term mechanism to pay for monitoring and maintenance at the site.

Lacking special funding provisions, state officials and community leaders worry that they'll be forced to wage yearly fights to persuade Congress to protect their community.

Paul Mydler, vice chairman of the Weldon Springs Citizens Commission, put it this way: "The question is, how in the hell is all this stuff going to be funded?"

He asked, "Will Congress say, 'It's been five years and this site is cleaned up and since people aren't barking loudly, maybe we can save a little money here?'"

Thomas Nelsen, another commission member, said, "There's a concern that DOE (the Department of Energy) is going to try to wash its hands of the whole thing and just walk away and leave it sit."

Energy Department officials did not return repeated phone messages left at several offices around the country last week regarding planning for the future of Weldon Spring and other sites.

But Pam Thompson, the Energy Department's project manager at Weldon Spring, asserted that fears that the site would be neglected were misplaced.

"Maybe DOE won't be here, but people will be here and American citizens have governments, and someone will be here to respond to citizens," she said.

Nonetheless, the government has done little to reassure Missouri. Since July, when the Energy Department finished the latest draft of its stewardship plan -- its third -- Missouri officials have been rebuffed in demanding more details.

They are troubled by a preliminary suggestion that less than \$4,000 yearly will be made available for a state and local role. They are insulted by what they regard as better planning for the future of other waste sites when they are closed.

In correspondence with the government, the Missourians belittle the Energy Department's Weldon Spring plan as being loaded with jargon and "insider talk" that would have little meaning to people trying to protect the site in the future.

The dispute has generated a series of indignant letters to the government from Missouri's Department of Natural Resources, one as recently as last week complaining about the lack of attention to long-term funding.

Mahfood summed up the state's underlying fear in a letter written Sept. 27 to Jesse Roberson, the Energy Department's assistant secretary for environmental management.

"We are concerned that the Energy Department appears to be committing the same fundamental lapse which occurred during the Cold War: waiting until the project is done to consider the full long-term and life-cycle environmental implications of the decisions that are made," he wrote.

"We cannot stand idly by and allow the same mistake to be repeated." The contents of the containment cell, as the tomb of wastes is called, reflect the hectic pace of military preparations in St. Charles County that began during World War II and proceeded for two decades.

Radioactive and chemical wastes were removed from 44 structures for burial in the cell, which covers 45 acres and stands 75 feet tall. Whole buildings were shredded and entombed with tons of contaminated soil beneath clay, a synthetic liner, more layers of gravel and sand and more than three feet of rock.

Before pronouncing the project completed, the Energy Department must finish securing a nearby quarry where the old Atomic Energy Commission dumped material from a uranium processing plant in the 1960s.

Missouri officials are not taking issue with the engineering. As recently as Nov. 8, the Department of Natural Resources congratulated the Energy Department team in Weldon Spring and its contractors for "hard work and good faith ... toward a successful cleanup."

What Missouri officials worry about is the future. And what the Energy Department does next at Weldon Spring is being watched far beyond Missouri.

Weldon Spring is the first of many such complex cleanup operations that the government will be finishing in the coming years. Then the next stage of an enormous obligation -- safeguarding still-dangerous sites -- will begin.

"I think DOE is under pressure to demonstrate that they can close these sites, and what they do at Weldon Spring will serve as a model, at least in the short-term," said Thomas Leschine, a professor at the University of Washington and the chairman of the National Academies of Science panel that identified deficiencies in the Energy Department's planning for waste sites.

"I have the general feeling that they are trying to do a better job of planning. But what they have is something inherently difficult to manage," he said.

"Faustian bargain"

Already, the government has spent \$50 billion on cleaning up nuclear waste. The scientists' report estimated that the cost would surpass \$200 billion -- more than enough to run the state of Missouri for a decade.

In a famous quote recalled in the Academies of Science report, nuclear scientist Alvin Weinberg referred to these obligations as "a Faustian bargain with society. ... The price we demand of society for this magical energy source (atomic power) is both vigilance and a longevity of our social institutions that we are quite unaccustomed to."

Nonetheless, the panel of scientists lamented, the potential problems have received little public debate. Among its sobering conclusions, the scientists' report says few Energy Department sites will be cleaned up sufficiently to allow unrestricted use. Most will require long-term monitoring and activities that include "pump-and-treat" operations to minimize the spread of water pollution.

The scientists observe in their report that future problems at nuclear waste sites cannot be predicted and that the severity of future risks are not well understood. Many of the sites, their report says, will pose "risk to humans and the environment for tens or even hundreds of thousands of years."

The scientists faulted the Energy Department for its lack of preparation to oversee waste sites, noting that stewardship plans will be required for about 100 of 144 cleanup operations.

The report criticizes the Energy Department for taking what it calls a "restrained and piecemeal approach" which, among other things, has no provision for long-term funding. It also says plans must have "a clear system of governance that specifies what is to be done and by whom."

The report also stresses the need for the Energy Department to be open about its planning and give the public the right to review and comment on stewardship plans while they are being written.

"Transparency," the scientists wrote, "lays the groundwork for accountability."

Thompson, the Weldon Spring project manager for the Energy Department, said she was forbidden to talk about future government policies.

She added, "I don't think there is anything to worry about. I believe that people can be assured that nobody is going to walk away from the site."

But without details, Missouri officials are not finding such statements assuring.

In Washington last week, Robert Geller, who heads the federal facilities section in Missouri's Department of Natural Resources, said he was unable to get clear answers about Weldon Spring from Energy Department officials at a National Governors' Association meeting about waste sites.

"We still don't know who is going to be ultimately responsible. We have been told several different things at several different times," he said. "We're hoping they understand that Missouri is serious about moving forward."

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November 14, 2001 - The Cincinnati Enquirer

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"Last tainted soil removed at Fernald"

Last tainted soil removed at Fernald

The Associated Press

The government said Tuesday the last of 400,000 cubic yards of contaminated soil and debris has been removed from the Fernald plant, the former uranium processing plant in Crosby Township.

The government is spending at least \$3.7 billion to clean up and decontaminate the 1,050-acre site.

The U.S. Department of Energy hopes to complete the cleanup by Dec. 31, 2006, barring major problems or action by Congress to reduce funding for the project.

Energy Department officials said its cleanup contractor, Fluor Fernald Inc., had finished removing the contaminated dirt from a 26-acre plot of land. The tainted dirt had been contaminating underground water.

The location is just south of where the government processed uranium for almost 40 years to be used at other federal sites in the production of nuclear weapons. Tons of contaminated construction debris, dirt and ash from boilers were dumped on the land between the early 1950s and the late 1980s. Uranium processing at the Fernald site was halted in 1989.

Lisa Crawford, president of Fernald Residents for Environmental Safety and Health, which is monitoring the government's cleanup, said it eliminates the leaking of contaminated materials that had been located above the Great Miami River aquifer, a regional source of drinking water.

Ms. Crawford was renting a house near the Fernald site when she learned in 1984 of radioactive contamination in a well that her family had been using.

Before 1995, testing of the underground water revealed it had uranium concentrations as high as 2,000 parts per billion, compared to 1 to 3 parts per billion which are considered normal background levels.

Energy Department officials said monitoring of the ground water now shows uranium contamination levels - before treating the water - at about 50 parts per billion.

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"Project eliminates contaminator"

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Project eliminates contaminator

EPA may certify Fernald site 'clean'

By Kristin McAllister
kmcallister@coxohio.com
Journal-News

ROSS TOWNSHIP

The cleanup of some 500,000 cubic yards of contaminated production materials, soil and debris from the Southern Waste Unit at Fernald marks the elimination of the site's greatest contaminator to the aquifer.

Completed Friday, and expected in 2002 to be certified "clean" by the Ohio Environmental Protection Agency, it is the single most significant cleanup on the 1,050-acre Department of Energy site to date.

"We had a pretty big area here that had radiological contamination," said Johnny Reising, DOE associate director of Fernald site cleanup. "They were constantly running samples back then to see how their production was going in terms of purity — uranium, thorium, whatever — and so they would dump that stuff down here. So you had pretty high concentration of pure product just sitting buried deep."

Uranium topped the list as the highest contaminant concentration, said Rob Jenke, DOE-Fernald project manager.

"Thorium would probably be second and radium

was third," he said.

Aquifer-monitoring well data prior to 1995 revealed uranium contamination as high as 2,000 parts per billion, compared to a naturally occurring uranium background of 1 to 3 ppb.

"Our groundwater monitoring currently shows the uranium contamination levels prior to treatment at about 50 ppb beneath the former source area," Reising said. The waste acceptance criteria in this area is 10 ppb; in the production area it is 80 ppb.

Two injection wells will be added to the area for continuing groundwater pumping, said project director Jyh-Dong Chiou.

Prior to the cleanup, the contaminated site was about 85 feet high. Work involved "chasing" contamination deeper and deeper, Chiou said, pointing to where some 50 to 100 drums of various contaminated waste were retrieved.

"Right under those drums, it directly goes to the aquifer," he said. "That used to be the highest level of contamination into the aquifer."

And the impact to the community of that contamination, Reising said, has been critical.

"That's probably what we're seeing south of here now are the remnants of that in the groundwater contamination," he said.

Using about 200 trucks daily, excavation kicked off in April 1998 and involved the removal of about 400,000 cubic yards of soil and debris and various wastes from 26 acres, and the removal of boiler plant flyash from another 14 acres. About 95 percent of the contaminated

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A Fernald site Southern Waste Unit worker sprays water onto contaminated soil to keep floating debris down to a minimum in preparation for the soil's transport to the on-site disposal facility. Submitted photo

waste was taken to the on-site disposal facility (OSDF), while the remaining 5 percent was shipped to Envirocare in Utah.

To speed things up, Fernald incorporated a unique real-time contamination monitoring method to allow for swift soil sampling results.

"We hooked (detectors) to tractors so that you could get a mobile scan," Janke said. "The information was sent via ethernet, a radio frequency to a mobile van, which would provide quick

mapping and instructions. It was pretty much on-the-spot turn-around results."

The other key facet involved the coordination between the Southern Waste Unit cleanup workers and Fernald site decontamination and demolition crews in getting the waste into the OSDF.

"Making sure that you're putting that 85 percent soil to about 15 percent debris," Reising said. "The layering is needed to stabilize — to avoid settling and maintain the cap and liner."

Another vital part of the project involved a 50-foot push out south and 300-foot reroute of Paddys Run, a stream that runs along the project area.

"The 40-so-odd inches of rain that we got per year allowed the contamination to either infiltrate or to run directly into Paddys Run," Chiou said.

The stream bank was stabilized using clean fill material, rock and environmentally accepted engineering.

Of the entire Fernald site, about 52 percent now has been certified clean by the U.S. EPA.

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"Universal Demolition Processor Converts Concrete Pads to Useful Aggregate"

Universal Demolition Processor Converts Concrete Pads to Useful Aggregate

The Universal Demolition Processor (UDP), funded by the DOE Office of Science and Technology, is making concrete recycling a reality at the Fernald Environmental Management Project. The Accelerated Site Technology Deployment Project is three technologies in one. With its exchanging jaw sets, it can be used as a concrete pulverizer to demolish and process concrete buildings, slabs, and foundations; a concrete cracker to cut and remove large concrete sections for later processing or direct disposal into the On-Site Disposal Facility (OSDF); or a shear capable of cutting thick steel.

Over 200 structures existed in the 136-acre process area known as the former uranium production facility. These structures and the underlying concrete slabs, foundations, footers and walls contain an estimated 239,000 cubic yards of concrete, all of which must be removed and demolished. The concrete slabs represent 1.2 million square feet, or approximately 27 foot-



The concrete pulverizer jaw demolishes a section of building foundation

ball fields, of material. The site also houses numerous steel tanks that require safe and efficient cutting and downsizing.

Since the UDP's deployment in Fernald's South Field in May, this durable, multi-functional technology continues to travel from pad to pad crushing concrete up to 6 feet thick, leaving



The concrete pulverizer jaw separates the reinforcing steel bar from the concrete, leaving valuable reusable aggregate

piles of 8 inch diameter and smaller, rough-cut, usable aggregate. The pulverizer attachment is capable of reducing the size of concrete chunks into aggregate used for erosion control as well as construction laydown areas for vehicles and equipment staging. A portion of this crushed concrete is being recycled as aggregate for use as temporary haul roads and as project support in and around Fernald's OSDF.

A significant savings is projected for the first phase of this project, which will remove approximately 4,000 cubic yards of concrete. Cost savings of \$112,000 are anticipated from the use of recycled concrete, which will reduce the need to purchase and import virgin aggregate for construction and road reinforcement. The use of recycled concrete is also estimated to reduce waste disposal cost by \$30,000, since the site will no longer need to dispose of 4,000 cubic yards of imported virgin aggregate bringing the total project savings to \$145,000.

The UDP's attachments help re-process concrete that was once designated simply as waste, into a useful, temporary product and reduce additional waste generation," said Tom Daughtrey, Fluor Fernald construction manager. "The initiation of the UDP's deployment will further enhance the practice of reuse and recycling to maximize cost efficiency in the remediation efforts at Fernald."

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"Long-term Stewardship Planning Authority Moved to Washington"

LONG-TERM STEWARDSHIP PLANNING AUTHORITY MOVED TO WASHINGTON

Consolidation Comes as Part of Broader Review

Assistant Secretary of Energy Jessie Roberson, after an initial review of the Department's long-term stewardship program, has removed field offices' programmatic and policy-making authority for long-term stewardship and consolidated that authority at DOE headquarters. Moving policy-making authority to Washington, D.C., Roberson said in an Oct. 26 memo to EM program officials, will allow Environmental Management officials to focus the efforts of the Idaho National Engineering and Environmental Laboratory on the scientific and technical aspects of long-term stewardship. Roberson also has launched a comprehensive review of the long-term stewardship program to clarify its purpose and the roles and responsibilities of DOE headquarters and field offices. In her memo, Roberson said the review will include an assessment of "the approach we are taking to conduct planning at the site level as well as the transfer of responsibility for stewardship activities after EM's cleanup actions are complete."

Regulatory Assessment

The review also will focus on existing and proposed regulatory requirements for post-closure, she revealed. The regulatory assessment will be led by the EM Office of Science and Technology Long-Term Stewardship office, and will include "the identification of those site-specific post closure requirements that are in place and being met as well as impending compliance documents impacting our long-term stewardship responsibility." Roberson recommended that field managers consider requirements that do, or will, apply at their sites after closure to assist the Department in developing a comprehensive picture of the regulatory environment. "We need to know where we stand before we enter into new policy regarding post-closure enforceable actions," she said.

Smaller Steering Committee

The executive steering committee which has been used to evaluate and develop policy and to prepare a strategic plan for DOE's long-term stewardship efforts will continue, Roberson revealed, albeit with a reduced membership to "improve its efficiency and effectiveness." The committee will now comprise representatives of the Albuquerque, Chicago, Rocky Flats, and Savannah River field offices; the National Nuclear Security Administration's Office of Defense Programs; the Office of Science; the Office of Environment, Safety, and Health; and the Office of Environmental Management. Representatives should be at the assistant manager level or higher for field offices and at the senior management level for headquarters elements, Roberson said.

Seven Principles

EM's Office of Long-Term Stewardship, she said, will continue to work with the Field Long-Term Stewardship Working Group to identify and prepare issues for discussion and to draft the strategic plan for the executive steering committee's review. That plan, she said, should be developed using draft principles, drawn up at the committee's last meeting. Those principles include:

- Incorporating long-term stewardship as an integral part of all DOE programs and activities;
- Incorporating long-term stewardship as a component of all aspects of cleanup decision-making;
- Recognizing the Energy Dept. as a trustee of natural and cultural resources;
- Establishing long-term stewardship as a component of all relevant Departmental policies, practices and systems;
- Developing an inter-generational approach for long-term stewardship;
- Developing a long-term stewardship policy that provides a consistent framework while acknowledging sites' need for flexibility; and
- Involving stakeholders and state, local and tribal governments in discussions of long-term stewardship issues and the development of long-term stewardship policies and plans.

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"Long-term Stewardship Planning Authority Moved to Washington"

Better Relations

Roberson emphasized in her memo the need to cultivate better relationships and improve coordination with national groups representing local, state and tribal governments. "Clear communication and proper coordination with [those organizations] will help the Department shape and implement its policies," Roberson said. "We are currently reviewing how to best work with the various groups who have interest in these issues and to do it in an efficient and expeditious manner."

Regulators Offer Latitude

Tom Winston of the Ohio Environmental Protection Agency, who serves as co-chairman of the Environmental Management Advisory Board's Long-Term Stewardship Committee, said Roberson, through the overall cleanup program review and specifically the long-term stewardship review, appears to be assessing the way the Environmental Management program conducts its business. He said state regulators "want to give her some latitude," but will be watching for indications as to the direction the cleanup program appears to be heading, how effective proposed changes are, and whether the net effect of the reviews is positive or negative. "It appears long-term stewardship is getting a full review, just as other components of program are," Winston said. "Those of us on the outside will watch closely, make recommendations, and continue to integrate long-term stewardship into our regulatory decisions. It's a fundamental part of cleanup planning, because it affects near-term decisions on contaminants left in place."

He added the Environmental Management Advisory Board had recommended earlier this year that DOE officials centralize authority for long-term stewardship planning at headquarters. "We spoke to the field offices and to headquarters before we made that recommendation," Winston said. "Our feeling was that at this point, it was critical to have a strong headquarters presence and leadership in long-term stewardship planning."

Weldon Spring Imbroglia

DOE's initial efforts to develop site-specific long-term stewardship plans have met with mixed success. While Ohio EPA's Winston said his agency is working closely with DOE's Ohio Field Office on a stewardship plan for the Fernald site, where a capped disposal facility will be left in place after site-cleanup is complete, the relationship between DOE field offices and state oversight agencies is not always so cooperative, or so cordial. In Missouri, for example, DOE's draft long-term stewardship plan for the Weldon Springs site was rejected outright by the state's Dept. of Natural Resources (DNR).

In a scathing, three-page letter backed up by 16 pages of detailed comments, DNR Director Stephen Mahfood on Sept. 27 told Pamela Thompson, DOE's project manager for the Weldon Springs Remedial Action Program, the draft stewardship plan "fails to establish a clear explanation of the DOE's commitments and actions" after the site is closed. The draft plan, he added, does not adequately address key components of stewardship, including current knowledge and documentation used to decide the course of action, plans for action, and future funding and institutional controls. According to Mahfood,

DOE chose to construct a waste disposal cell, designed to last hundreds or thousands of years, that does not outlast the potential contamination lifetime of the waste. The DOE also chose to leave contamination in the Southeast Drainage and other impacted areas. With these decisions, the DOE accepted the responsibility to adequately protect human health and the environment beyond the completion of the disposal cell construction.

Dearth of Details

But Mahfood asserts DOE's draft plan outlines only broad scopes of action and includes no specific details. Information on "who is responsible for what and when it will be

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"Long-term Stewardship Planning Authority Moved to Washington"

done must be provided," Mahfood said. Weldon Springs officials ignored extensive DOE guidance documents when putting together their draft plan, he added, and have identified no secure mechanism to ensure funding for stewardship at the site. In fact, Mahfood reveals, the plan proposes annual funding levels of less than \$4,000 for state and local oversight of the stewardship program. "Without adequate funding, the plan will sit on the shelf, nullifying any real commitment to stewardship," Mahfood warned. "DOE has provided adequate funding for other states; I will not settle for anything less for Missourians."

Mahfood said DOE's inadequate stewardship plan is leading state officials to regret their approval of the on-site disposal facility. "Other states will think long and hard when looking to Weldon Spring to gauge whether the strategy of allowing on-site capping of waste is prudent," he warned. "DOE's promises and commitments to ensure post-closure protection of human health and the environment through a Stewardship Plan appear to be empty."

Work In Progress

Missouri DNR officials, in conversations with *WC Monitor* in mid-October, sought to minimize the acrimony evident in Mahfood's letter, explaining the tone was intended to send a "wake up call" to DOE officials. Nonetheless, a DNR spokesman said last week the Department still has not produced an acceptable final plan. "We're being told it's a work in progress," spokesman Larry Erickson said. "They say they're working on it." A DOE spokesman at the Oak Ridge Operations office, which oversees the Weldon Spring site, had not responded to inquiries about the revised long-term stewardship plan by press time.

Erickson said state officials view Assistant Secretary Roberson's decision to take authority for long-term stewardship planning away from the field offices as a step in the right direction. "It shows DOE headquarters recognizes there have been problems," Erickson said. "It appears to be a positive sign." He added the seven principles Roberson has directed be included in the final long-term stewardship strategic plan are exactly what Missouri officials have been pushing for. "Those are principles we look forward to seeing in stewardship plans at all sites," Erickson said. ■

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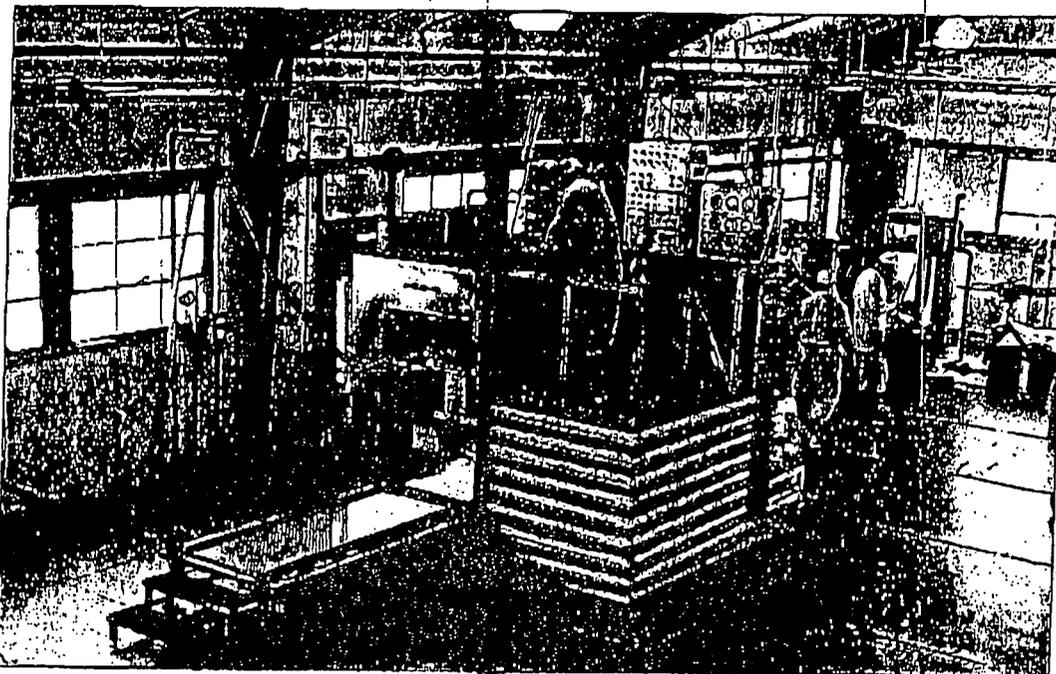
Radwaste Solutions

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"Fernald's New Enriched Uranium Repackaging Station"

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Fernald's New Enriched Uranium Repackaging Station

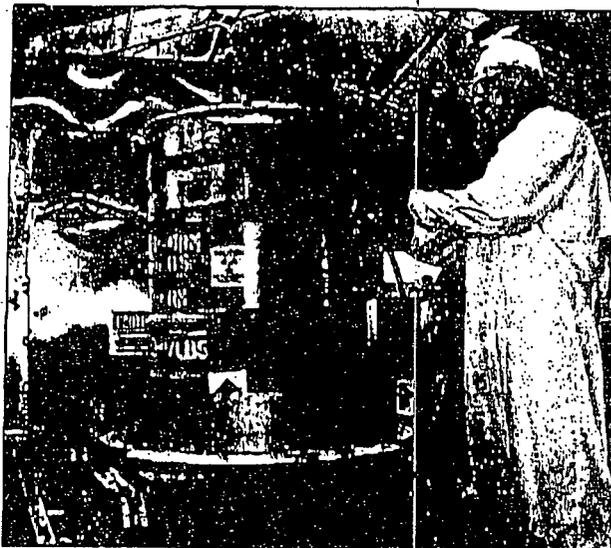


View of the entire vacuum transfer system with the platform in the elevated position. Workers will eventually use two additional systems to complete the repackaging process. Anticipated repackaging throughput rate is 30 product drums per day per system.

The Fernald Environmental Management Project is a 1050-acre U.S. Department of Energy site 20 miles northwest of Cincinnati, Ohio. Fernald has been designated a "closure site," and the closure contract awarded to Fluor Fernald Inc. in November 2000 attests to the tremendous effort being made by both Fluor and the DOE to effect substantial closure of the site within this decade.

One of the key elements of Fernald's closure process is removal of all nuclear product materials from the site. Timely removal of nuclear product is required for decontamination and decommissioning activities to proceed unhindered. In cooperation with the DOE's Nuclear Materials Focus Area (NMFA), Fernald has recently obtained a drum repackaging station that promises to make repackaging of certain types of nuclear product easier, more efficient, and safer for workers. (For more on the NMFA, see "The Nuclear Materials Focus Area: Meeting End-User Needs through Technology Development and Deployment," *Radwaste Solutions*, Sept./Oct. 2001, p. 40.)

The Drum Repackaging Station is a self-contained, high-efficiency particulate air-filtered repackaging unit that repackages greater than 1 percent ²³⁵U uranium compounds through vacuum transfer. It is being used to transfer uranium oxides and compounds of varying particle size and density from storage containers into ap-



Before placing a drum of material into the vacuum transfer chamber, a worker who will transfer the contents into numerous 30-gallon drums loosens the drum ring nuts.

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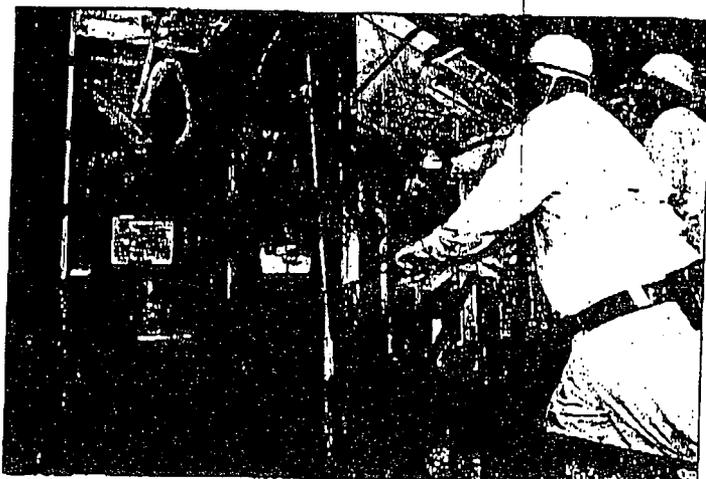
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A worker rolls a drum to be vacuumed into position inside the vacuum transfer system.



Source drum information is verified prior to transfer of materials.



Shielded by Lexan™, a worker transfers UO₂ from a 55-gal drum to a 30-gal drum. All of the material transfer activities are done in a negative pressure enclosure to ensure worker safety and to control any transfer process emissions.

A key element of Fernald's closure process is removal of all nuclear product materials from the site.

Fernald has recently obtained a drum repackaging station that promises to make repackaging of certain types of nuclear product easier, more efficient,

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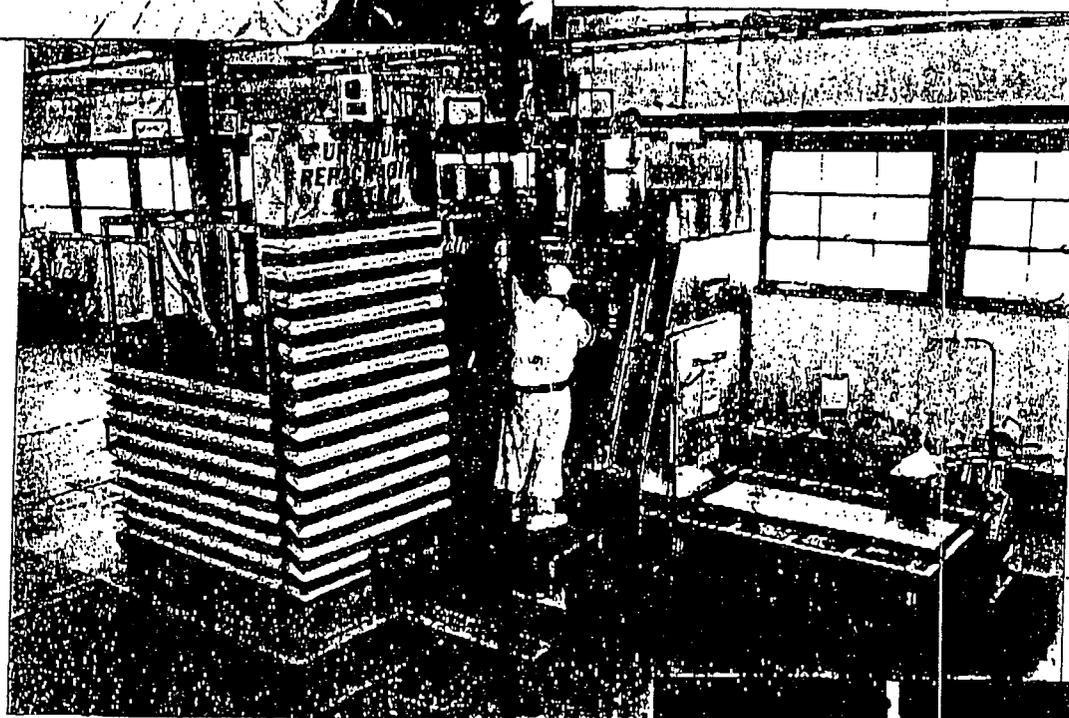
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Top: A worker vacuums 1.25 percent ^{235}U , UO_2 , from its original 55-gal drum for transfer to a 30-gal drum, considered a "shippable quantity" of fissile material. The 55-gal drums contain an average of 1100 pounds of material, and the 30-gal drums contain an average of 70 lb of material. Accurate weight measurements are critical to the repackaging process; they ensure that the fissile material packaged is less than or equal to 950 grams of ^{235}U per package.

Center: A worker activates the switch to raise the fill lid on a 30-gal drum before removal from the vacuum transfer system. The fill lid seals the drum during the vacuum transfer process.

Bottom: Using the enclosure access ports, a worker closes the lid on a 30-gal drum.



proved fissile material packages that can be shipped offsite.

After a competitive bid process, Fernald and the NMEIA purchased this system from designer/manufacture Power Products, of Georgetown, S.C. Following successful completion of startup activities, Fernald initiated use of the vacuum transfer system on June 28, 2001. This first unit was used to test the design and to identify any needed improvements. Information gained was then incorporated into two follow-on units, delivered in mid-August 2001.

Ultimately, this vacuum transfer method will be used to repackage approximately 96 metric tons uranium (MTU) weight of uranium trioxide (UO_3). This material is currently contained in 240 storage containers and will be repackaged into approximately 3400 fissile material packages. In addition, 2 MTU of uranium tetrafluoride (UF_4), currently stored in 33 containers will be vacuum transferred into approximately 70 fissile material packages. Other compounds are also under consideration for repackaging with this method.

The uranium materials are transferred in one building, then moved to another building for final prepping and shipment staging. The accompanying photos show the vacuum transfer process in more detail.

Questions about the Drum Repackaging Station? Contact Bob Schulten, Fluor Fernald Nuclear Materials Disposition Project manager, at 513/648-5730 or robert.schulten@fernald.gov.



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As part of Fernald's onsite storage identification, a radiological control technician labels a 55-gal drum.

A 30-gal drum is overpacked into a 55-gal drum as required for this type of fissile material packaging under 49 CFR 173.417(a)(8). Workers will fill the void space between the inner and outer drums with vermiculite to prevent any shifting of the inner drum during transportation.



A forklift operator removes an empty source drum from the cart used to move drums in and out of the vacuum transfer station.



A worker marks a container as "Empty" prior to sending it to be crushed.

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"At Fernald...contaminated soil removed from dump site"

AT FERNALD CONTAMINATED SOIL REMOVED FROM DUMP SITE

Cleanup crews at the Fernald site last week removed the last of more than 400,000 cubic yards of uranium-contaminated soil from a 26-acre dump known as the Southern Waste Unit, located south of the site's former uranium-processing facilities. The contaminated soil was the source of uranium contamination in the groundwater under the dump. Monitoring well data collected prior to 1995 showed uranium concentrations in the groundwater as high as 2,000 parts per billion in a region in which background uranium concentrations hover in the one-to-three parts per billion range.

The Southern Waste Unit received tons of contaminated construction debris, boiler plant fly ash, and soil during Fernald's 40-year production life. In the mid-1990s, Fernald officials began a multi-phased effort to contain, and then eliminate, the groundwater contamination under the dump. That effort began with the installation of a standard pump-and-treat system, followed by a number of

smaller-scale actions, including an erosion-control project to stop contaminated soil from entering Paddy's Run Stream, which borders the dump site. Excavation of the Southern Waste Unit began in 1998, with the contaminated soil trucked to Fernald's on-site disposal cell. "This project eliminates the most-active source of contamination to our aquifer," project director Jyh-Dong Chiou said in a release. "It was a high priority for DOE, EPA and our neighbors."

Johnny Reising, the Energy Dept.'s associated director for cleanup at Fernald, said current monitoring shows uranium concentrations in the groundwater under the dump site at about 50 parts per billion prior to treatment. "Removal of the source, infiltration of clean rainwater, and aggressive pumping have helped to greatly reduce the level of contamination," Reising said. "While our building demolition tends to receive most of the attention, elimination of this environmental threat has the most direct impact on the health and safety of our neighbors."

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"Fernald completes three-year cleanup effort to address groundwater contamination"

Fernald Completes Three-Year Cleanup Effort To Address Groundwater Contamination

More than three years after waste removal operations began, cleanup of a highly contaminated area at the Energy Department's Fernald plant in Ohio was completed this week, eliminating a major source of radioactive seepage into local groundwater.

Officials at the former uranium processing facility, located near Cincinnati, said the last of more than 400,000 cubic yards of contaminated soil and debris was removed from a 26-acre plot of land considered a major contributor to uranium concentrations in the aquifer underlying the plant.

The waste removal effort has been one of the highest priority cleanup projects at Fernald because the contaminated groundwater is considered the biggest immediate threat from the site to nearby communities.

Prior to the cleanup effort, groundwater monitoring under the area—known as the Southern Waste Unit—showed uranium concentrations as high as 2,000 parts per billion (ppb), well above the natural background level of one to three ppb.

The cleanup contractor at Fernald, Fluor Fernald, initially addressed the problem by installing extraction wells to pump the contaminated groundwater to treatment plants to reduce radioactivity levels. It also took action to stop soil erosion that was putting contaminated dirt into a local stream that borders the area.

Then in the spring of 1998, Fluor began excavating and trucking contaminated soil and debris from the Southern Waste Unit to a disposal facility located at Fernald.

Since the waste removal action began, uranium contamination levels in the aquifer have dropped to about 50 ppb beneath the Southern Waste Unit.

"Removal of the source, infiltration of clean rainwater and aggressive pumping have helped to greatly reduce the contamination," said Johnny Reising, DOE's associate director for cleanup at Fernald. "While our building demolition tends to receive the most attention, elimination of this environmental threat has the most direct impact on the health and safety of our neighbors."

The contaminated materials at the Southern Waste Unit were dumped there over four decades of uranium production at Fernald in support of U.S. nuclear weapons production. The waste, such as contaminated construction debris and boiler plant flyash, were dumped at the isolated plot to make room for building new facilities built at the site.

Fernald, shut down in the late 1980s, is one of several DOE nuclear weapons sites now undergoing accelerated cleanup in hopes of completion of remediation by 2006. To date, dozens of old production buildings have been torn down and 52 percent of the 1,050-acre Fernald site has been certified as clean by the U.S. Environmental Protection Agency, DOE officials say.

—GEORGE LOBSENZ

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"Roberson aims to cut \$100B, 30 years off cleanup program"

ROBERSON AIMS TO CUT \$100B, 30 YEARS OFF CLEANUP PROGRAM.

Assistant Secretary of Energy for Environmental Management Jessie Roberson hopes to shave \$100 billion and 30 years of the cleanup program. In a Nov. 19 memo to DOE Chief Financial Officer Bruce Carnes, Roberson gave the cost-and-time reduction goal second billing on a list of nine priorities, behind improving safety performance throughout the cleanup program. Roberson's memo was submitted in response to a Sept. 21 directive from Deputy Secretary of Energy Francis Blake and was first distributed publicly earlier this month at a meeting of the Fernald Environmental Management Site-Specific Advisory Board. EM officials will track cost and schedule improvements, Roberson said, through the use of the EM Integrated Planning and Budgeting Systems (IPABS) database.

Roberson's top priority, improving safety performance, involves fully implementing Integrated Safety Management at cleanup sites, as well as "better applying resources to risk and driving down or eliminating risk by the work we do rather than avoiding or delaying this work," she said in the memo. Roberson acknowledged a methodology must be developed to track the Department's performance in improving safety, and said that system "must go beyond traditional measurements of total recordables, lost work days, etc., [which] are no longer adequate." Roberson's other priorities, in the order they appear on the memo to Carnes, include:

- Closing Rocky Flats, Fernald and Mound, as well as six small sites not originally considered "closure sites," by 2006;
- Consolidating nuclear materials out of all EM sites by 2004 to improve security by reducing the number of "targets." Progress in that endeavor will be tracked by focusing on the elimination of Perimeter Intrusion Detection and Alarm Systems at all EM sites other than the Savannah River Site;

- Eliminating the need to vitrify high-level liquid wastes, the single-largest cost center in the EM program, by developing at least two proven, cost-effective technologies to treat every high-level waste stream in the complex;
- Make the Environmental Management program a better customer by improving contract management and holding contractors accountable for their performance. EM officials should define what they want to accomplish and leave the "how" to the contractor. In addition, EM should become more predictable so that more contractors will be attracted to DOE jobs;
- Shrink the EM footprint by at least 40 percent over the next four years;
- Get wastes to disposal facilities quickly by safely disposing of 100,000 drums of transuranic waste at the Waste Isolation Pilot Plant, decreasing the costs of disposing of transuranic and low-level waste by 30 percent; and opening the Nevada Test Site and the Hanford site for the disposal of out-of-state low-level mixed waste; and
- Reshape EM systems and infrastructure to drive accelerated cleanup and closure. ■

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"Four teams to bid on SRS Salt-Processing Contract"

FOUR TEAMS TO BID ON SRS SALT-PROCESSING CONTRACT

Four teams have formed to bid on the two contracts to prepare conceptual designs of a plant to remove high-level salts from liquid wastes at the Savannah River Site. The long-awaited final request for proposals for the project was issued Dec. 4, detailing the Department's intention to select one contractor at the end of the conceptual design phase to provide preliminary design, final design, construction and commissioning of the facility. In October, Assistant Secretary for Environmental Management Jessie Roberson signed a record of decision selecting caustic side solvent extraction as the technology to be used to separate high-level constituents of the site's liquid high-level waste prior to vitrification in the Defense Waste Processing Facility.

The teams preparing to bid on the project include:

- Stone & Webster with SAIC and Cogema;
- Foster-Wheeler and BNFL;
- Fluor Corp., CH₂M Hill, RWE NUKEM and Tetra-
tech; and
- Parsons Engineering and Duratek. ■

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Nevada files lawsuit against Energy Department over nuclear dump guidelines

*By Ken Ritter, Associated Press
Thursday, December 20, 2001*

LAS VEGAS ~ Nevada sued the federal Energy Department this week, challenging the agency's criteria for deciding whether the nation's radioactive waste can safely be buried 90 miles northwest of Las Vegas.

The state wants the U.S. Court of Appeals in Washington to stop the project before Energy Secretary Spencer Abraham decides whether to recommend Yucca Mountain as a suitable place to bury the nation's spent nuclear waste, said Bob Loux, director of the Nevada Nuclear Projects Agency.

"The DOE is changing the rules about how they assess whether Yucca Mountain is suitable or not," Loux said. "We believe the new rules are not in compliance with the law."

The lawsuit charges the Energy Department has constructed a new plan that relies on engineered barriers such as corrosion-resistant casks ~ rather than the geology of Yucca Mountain ~ to contain the intense radioactivity at the site.

But Joe Davis, Energy Department spokesman, said the agency reshaped its guidelines to take advantage of emerging technology. Davis said he had not seen the lawsuit.

Abraham said last week he has not made a decision whether to recommend to President Bush the volcanic ridge for storing 77,000 tons of nuclear waste for 10,000 years or more. Congress has asked for a decision by Feb. 28. Abraham's aides have said he intends to make a recommendation this winter.

The mountain, at the western edge of the vast Nevada Test Site, is the only place under study.

EDITORIAL

TUESDAY, NOVEMBER 20, 2001



The History of the Atomic Age
The University of Tennessee Department of History
Center for the Study of War and Society

For more than a half century, scientists at Oak Ridge have participated in discoveries that changed the military, political, environmental, and social history of the world. To tell this complex and exciting story, the University of Tennessee History Department's Center for the Study of War and Society, in conjunction with its regional partners, is pleased to launch *The History of the Atomic Age*.

The Center for the Study of War and Society is dedicated to studying the historical impact of war and peace on American society and institutions. Since its inception in 1984, the Center has emerged as a leader in the collection of documents and oral histories from veterans; the sponsorship of scholarly conferences and lectures; and the creation of public programs and teacher workshops that promote a better understanding of the issues of war, peace, and society among the citizens of the United States. Dr. G. Kurt Piehler is the Director of the Center and a specialist in military history.

Dr. Kathleen A. Brosnan, a specialist in environmental history, would be appointed Associate Director of the Center to oversee *The History of the Atomic Age* in conjunction with Dr. Piehler and the other activities of the Center. The immediate focus is the collection of oral histories and documents from the World War II generation. It is important to accurately and thoroughly develop the story of the Manhattan Project. The Center, however, also would pursue documents from and interviews with ORNL participants from the Cold War through the present, including those involved in nuclear weaponry, civilian nuclear power, nuclear medicine, and environmental research. We envision telling a multifaceted history that addresses not only the political and military history in this region, but the implications of the Atomic Age for the environment and racial, class and gender relations across the United States. Dr. Janis Appier, who specializes in twentieth-century social history, and Dr. George White, who specializes in postwar diplomatic history and race relations, are eager to participate in this project.

Another essential aspect of this project will be the development of a comparative international history which considers how the Atomic Age affected life in Russia, Germany and other nations. Dr. Jeff Sahadeo, whose scholarly interests focus on Russian history, and Dr. Vejas Liulevicius, an historian of modern Germany, will join this project.

The strength of *The History of the Atomic Age*, as we envision it, is the utilization of partnerships across campus, the region, and the nation. Dr. Brosnan and Dr. Piehler have already discussed potential plans with Jim Campbell of the East Tennessee Economic Council; Marvin Yarber, Tours/ Foreign National Access Officer for Bechtel Jacobs; Sandra Plant and Bill Wilburn of BWXT Y-12 Public Relations; and Mick Wiest, President of the Oak Ridge Heritage and Preservation Association. The professors previously met with representatives of UT/Battelle and the American Museum of Science and Energy. UT's History Department has an established history of working with the Tennessee State Museum and the East Tennessee Historical Society.

The Center for the Study of War and Society also will partner with UT's Energy, Environment, and Resources Center, working with Dr. Rosalyn McKeown (Geography and Environmental Education) and Dr. Sheila Webster (Technology Research and Development). The EERC has 15 years of collaborative experience with ORNL. UT's Environmental Studies Committee and its Central and Eastern European Studies Committee have expressed interest in this project, allowing the Center to extend the project across interdisciplinary lines.

The partners have identified three primary areas of activity for *The History of the Atomic Age*: documentation, preservation, and exhibition. Given the age of some of the participants and the degradation of some facilities, the partners recognize significant priorities in documentation and preservation. With respect to documentation, UT will take the lead with the assistance of its partners. Graduate students specifically recruited for this project will catalog documents at the Department of Energy, ORNL, AMSE and other institutions throughout the Oak Ridge region to create an accessible web bibliography. Once organization and cataloging of the archives begins, the Center for the Study of War and Society can attract leading historians in various fields by offering annual postdoctoral research fellowships for senior and junior scholars. The fellows also will offer public lectures. The Center will host annual scholarly conferences on a variety of subjects related to issues of war, peace, society, the environment and diplomatic history. The Society for Military History and the American Society for Environmental

History, recently accepted proposals from Dr. Piehler and Dr. Brosnan, respectively, for Knoxville to host their national conferences within the next four years. Aspects of those programs can be coordinated with *The History of the Atomic Age* and Oak Ridge National Laboratory.

Oral history collections will be maintained with other materials in the archives of the Center for the Study of War and Society. Again, given the age of the World War II participants, time is of the essence in conducting many of these interviews. Under this project, the already extensive holdings of UT's Hodges Library also will be expanded to include all relevant literature and multimedia resources documenting the profound political, social, cultural and environmental changes that followed the harnessing of the power of the atom.

Preservation will proceed on a variety of levels under the direction of the Oak Ridge Heritage and Preservation Association and with the assistance of UT's Center for the Study of War and Society and the other partners. Buildings which might merit landmark status will be identified and nominated. Others that are too contaminated or too large to be preserved will be documented via photographs and videotape for possible reconstruction in virtual exhibits. The partners also will seek means of preservation and storage for large individual pieces of equipment, such as the Roosevelt cell of the K-25 gaseous diffusion plant. The other equipment and buildings which merit immediate attention include the Beta-3 "Race Track" of the Y-12 Electromagnetic Separation Plant, Building 9731 involved in the development of prototype calutrons; and the X-10 graphite reactor.

Once the partners obtain preliminary financing for *The History of the Atomic Age*, other funding sources could potentially aid the completion of the project. In addition to potential funding from private organizations, such as the MacArthur Foundation, Pew Charitable Trusts, the Wilson International Center, and others, the Center for the Study of War and Society can pursue federal sources that might not otherwise be available. Viable federal agencies for the support of this project include the National Historical Publications and Records Commission, the National Archives, the National Endowment for the Humanities, the National Science Foundation, and the State Department's Bureau of Education and Cultural Affairs.

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