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**FERNALD CITIZENS TASK FORCE AGENDA AND HANDOUTS FROM
JUNE 10, 1995 PUBLIC MEETING**

06/10/95

APPLEGATE

TASK FORCE

40 71

AGENDA

FERNALD CITIZENS TASK FORCE

A U.S. DEPARTMENT OF ENERGY SITE-SPECIFIC ADVISORY BOARD

Chair:

John S. Applegate

Members:

James Bierer

Marvin Clawson

Lisa Crawford

Pam Dunn

Dr. Constance Fox

Guy Guckenberger

Darryl Huff

Jerry Monahan

Tom B. Rentschler

Robert Tabor

Warren E. Strunk

Thomas Wagner

Dr. Gene Willeke

Alternates:

Russ Beckner

Jackie Embry

Ex Officio:

J. Phillip Hamric

Graham Mitchell

Jim Saric

REVISED AGENDA

June 10, 1995

1. *Time and Place*

The next regularly scheduled meeting of the Task Force will be on Saturday, June 10, 1995, from 8:30 a.m. to 12:30 p.m., at the Joint Information Center, 6025 Dixie Highway, Fairfield, Ohio. We will begin the meeting promptly at 8:30.

2. *Subjects*

8:00	Continental Breakfast (optional)
8:30	Call to Order
	Approval of Minutes
	Chair's Remarks
8:50	Identification and Discussion of Unresolved Issues
10:00	Break
10:15	Discussion of Draft Final Report
11:00	Opportunity for Public Comment
12:15	Wrap Up
12:30	Adjourn

3. *Documents*

The documents and other materials relevant to the meeting's subjects are being developed by the Task Force staff. They will be distributed at the meeting.

4. *Chair's Announcements*

5. *Other Meetings of Interest (calendars enclosed)*

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July 1995

PUBLIC PARTICIPATION

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

								1
2	3	4	5	6	7	8		
	7:30pm Morgan Township - Civic Center			7:00pm Ross Township - Ross Fire House		8:30am Fernald Citizens Task Force Meeting		
9	10	11	12	13	14	15		
	7:30pm Crosby Township - Civic Center							
16	17	18	19	20	21	22		
	7:30pm Morgan Township - Civic Center			7:00pm Ross Township - Ross Fire House				
23	24	25	26	27	28	29		
				7:30pm FRESH - Venice Presbyterian Church				
30	31							
	7:30pm Crosby Township - Civic Center							

Please call Judy Armstrong for changes at 738-0003.

6986

FINAL REPORT OF THE
FERNALD CITIZENS TASK FORCE

First Review Draft
June 5, 1995

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I. INTRODUCTION

This report represents the formal record of the recommendations of the Fernald Citizens Task Force to the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), and the Ohio Environmental Protection Agency (OEPA) regarding environmental remediation of the Fernald Environmental Management Project. The Fernald Citizens Task Force was established in August 1993 by DOE as a site-specific citizens advisory board for the Fernald facility. The Task Force is also chartered under the Federal Advisory Committee Act.

The Fernald Citizens Task Force was created to provide DOE, EPA, and OEPA with answers to four specific questions:

- 1) What should be the future use of the Fernald site?
- 2) What residual risk should remain following remediation and what remediation levels should be used?
- 3) Where should the waste be disposed?
- 4) What should be the priorities among remedial actions?

The Fernald Citizens Task Force successfully completed this mission and a detailed description of recommendations for each of these issues forms the centerpiece of this.

The report also presents background information on the Fernald site and the Fernald Citizens Task Force that is necessary to understand the recommendations and how they were developed. This background information is presented to frame the Task Force's understanding of the site and its environmental conditions. As such, this information also serves to limit the Task Force's recommendations to the extent that this information is accurate. While we are confident that the information provided to the Task Force was the best currently available, should any key information prove to be erroneous or change significantly in the future, then certain recommendations may need to be revisited.

A final purpose of this report is to provide the reader with a complete understanding of the Fernald Citizens Task Force and how it developed its recommendations. Section III provides a description of the organization of the Task Force, and Section IV describes the process used to make decisions. Selected materials have also been included as appendices to present a more detailed record of the Task Force's operations and deliberations.

II. OVERVIEW OF THE FERNALD FACILITY

History

The U.S. Department of Energy (DOE) facility at Fernald, Ohio, was first established under the auspices of the Atomic Energy Commission as the Feed Materials Production Center. Ground was broken on May 16, 1951, and production began on October 11, 1951. For the better part of 40 years, the plant produced uranium metal for use in nuclear weapons. While production levels fluctuated substantially over time, during the period of operations over 500 million pounds of high-purity uranium metals were produced for use throughout the nuclear weapons complex. The facility operated in this capacity until 1989, when the end of the Cold War brought about a halt in production and Fernald's mission was changed to environmental restoration. It is now referred to as the Fernald Environmental Management Project and is owned and operated by the U.S. Department of Energy.

Remedial activities began in 1986 under a Federal Facility Compliance Agreement between DOE and EPA, although little had been accomplished when the facility was placed on the National Priorities List in 1989. A new consent agreement completed in April 1990 and amended in September 1991 is the guideline by which remedial operations have been conducted. This consent agreement identified a specific schedule for remedial investigation (RI), feasibility study (FS), and record of decision (ROD) activities. Since that time, DOE has been engaged in a thorough investigation of the facility and surrounding lands to provide a detailed understanding of the environmental damage and human health risks created by uranium production at Fernald. As of this writing, these investigations are nearing completion and decisions are being reached as how to best remediate these problems according to the schedule laid out in the consent agreement. This schedule identified key milestones for each of five operable units as described below:

Milestone:	OU1	OU2	OU3	OU4	OU5
Alternative Screening	1/1/91	4/18/91	3/23/95	10/31/90	4/16/93
RI Report	10/12/93	10/19/91	3/13/96	4/19/93	6/24/94
FS Report	3/7/94	3/15/93	8/7/96	9/10/93	11/16/94
Proposed Plan	3/7/94	3/15/93	8/7/96	9/10/93	11/16/94
Draft ROD	12/6/94	12/10/93	5/2/97	6/10/94	8/2/95

Setting

The Fernald facility consists of 1,050 acres of land located approximately 17 miles northwest of downtown Cincinnati in a primarily rural setting. Surrounding properties consist of agricultural and residential development with some light industry within a two mile radius. Production operations were concentrated within a 136 acre industrial area in the center of this property. The property surrounding the former production area consists of a number of uses including several large open pits for waste storage to the west, forested wetlands to the north, a small creek which dissects the eastern edge of the site from north to south, and open fields leased for cattle grazing at the perimeters. A map of the site identifying these major divisions is shown in Figure 1.

The Great Miami Aquifer underlies the entire 1,050 acre site. The Great Miami Aquifer is a sole source drinking water aquifer, meaning it is the major source of drinking water in the region. Significant natural features of the site include the wetlands noted above and Paddys Run, an intermittent stream which is home to an endangered species of crayfish. At certain intervals, Paddys Run charges the Great Miami Aquifer. Paddys Run ultimately discharges to the Great Miami River which lies approximately one-half mile to the south and east of the site. The soil immediately beneath the site consists of a clay rich glacial overburden of up to 50 feet thick at the northeast corner of the site and thinning to nothing near Paddys Run. This clay layer contains silty sand lenses which contain a perched aquifer system that is not used as a source of drinking water. Beneath the clay layer is a thick sand and gravel layer containing the Great Miami Aquifer.

Contamination

Production and disposal activities, wind, and runoff during 38 years of operation have resulted in widespread contamination from uranium and other hazardous and radioactive chemicals both on and off the 1,050 acre site. This material includes drummed nuclear waste materials, bulk waste in pits and silos, mixed waste, and contaminated soil and debris. Based on the cleanup levels recommended by the Task Force, over three million cubic yards of waste and contaminated material will require disposal. However, if background conditions were sought, many times this volume of material would need to be managed. Figure 2 provides a breakdown of waste materials by location, volume, and severity according to Task Force recommended cleanup levels and identifies potential options for disposal.

As many as 100 contaminants of concern have been identified at Fernald consistent with what is found at industrial operations. Chemical contaminants include solvents, asbestos, PCBs, and heavy metals which are found throughout the production area and to some degree in site soils and groundwater. In addition, Fernald is heavily contaminated with radioactive compounds including uranium,

Figure 1. Major Physical Divisions at Fernald

Figure 2. WASTE VOLUMES AND DISPOSITION OPTIONS

WASTE CATEGORY	VOLUME (yd ³)	% OF TOTAL	RELATIVE HAZARD	DISPOSITION OPTIONS			
				Utah	NTS	Reuse	Onsite
Operable Unit 1							
<u>Pit Residues/Liners</u>	<u>628,200</u>	<u>20.4</u>	moderate	x			
<i>Subtotal Volume</i>	628,200	20.4					
Operable Unit 2							
Ash	108,600	3.5	low	x	x		x
Solid Waste	15,220	0.5	low	x	x		x
Lime Sludge	16,500	0.5	low	x	x		x
<u>Pit Residues/Liners</u>	<u>208,280</u>	<u>6.8</u>	low	x	x		x
<i>Subtotal Volume</i>	348,600	11.3					
Operable Unit 3							
Nonrecycleable Debris	158,400	5.2	low	x	x		x
<u>Recycleable Debris</u>	<u>43,200</u>	<u>1.4</u>	low			x	
<i>Subtotal Volume</i>	201,600	6.6					
Operable Unit 4							
K-65 (silos 1 and 2)	9,000	0.3	high		x		
Silo 3 Contents	5,000	0.2	moderate		x		
<u>Miscellaneous Debris</u>	<u>3,000</u>	<u>0.1</u>	low	x	x		x
<i>Subtotal Volume</i>	17,000	0.6					
Operable Unit 5							
Soil	1,775,000	57.7	low	x	x		x
<u>Water Treatment Sludge</u>	<u>60,000</u>	<u>1.9</u>	low	x	x		x
<i>Subtotal Volume</i>	1,835,000	59.6					
Legacy Wastes							
Nuclear Material Inventory	10,160	0.3	moderate			x	
Containerized Waste	35,600	1.2	moderate	x	x		
<u>Thorium</u>	<u>1,000</u>	<u>0.03</u>	high		x		
<i>Subtotal Volume</i>	46,760	1.5					
Total Waste Volume	3,077,160	100.0	all				
Off-site Selected	689,284	22.4	mod-high				
Disposal to be Determined	2,387,876	77.6	low				

thorium, radium, and radon gas. By far, the most prevalent contaminant found in the soil and groundwater at Fernald is Uranium. In the Fernald Dose Reconstruction project, the Centers for Disease Control estimated that as much as 1,000,000 pounds of uranium was released into the environment during Fernald's operation. Very high concentrations of uranium exist in soils in the production area. Airborne deposition of uranium has resulted in widespread contamination. While most of the heavy uranium particles fell to the ground within close proximity of the production area, enough was carried further to exceed background concentrations for a distance of up to five miles covering an area of 11 square miles.

The highest level contamination is found in three concrete storage silos to the west of the production area. Two of these silos contain approximately 9,700 tons of the so-called K-65 wastes, radium residues from the processing of pitchblende (a uranium-rich ore) that was conducted both at Fernald and in St. Louis. The silos were constructed in 1951 to provide temporary storage of the material and were never removed. Silo three contains metal oxide wastes from refinery operations and a fourth silo was never used and remains empty. North of the silos are six waste pits that contain solid and semi-solid wastes of varying types and concentrations. Flyash and sludges from industrial operations were also disposed in landfills west and south of the site. In the production area, there are numerous contaminated buildings and equipment requiring decontamination and disposal, and thousands of drums of waste awaiting off-site disposal. The soils beneath the production area are extremely contaminated as a result of leaks, spills, and runoff during production at depths exceeding 20 feet.

Leaching of contamination through soil and runoff of contamination into Paddys Run have resulted in a large plume of contamination in the Great Miami Aquifer beneath the Fernald site and some distance to the south of the site. Contamination of numerous wells has resulted in a number of homes being provided bottled water. Five pumping wells are in operation and have successfully halted spread of this plume pending future remediation.

In addressing the contamination problems at Fernald, DOE and EPA divided the site into five operable units. These units are each comprised of areas of the site that pose similar as listed below:

- 1) Waste pits
- 2) Other waste units: including south field contamination and flyash piles
- 3) Production area: waste, equipment, and buildings
- 4) Silos
- 5) Environmental media: soil and groundwater.

A map identifying the location of these operable units on the site is shown in Figure 3. Because technical information was developed separately for each operable unit, and because the regulatory schedule is based on them, the Task Force generally followed this organization in its consideration of the site.

Figure 3. Operable Unit Locations

III. TASK FORCE ORGANIZATION AND APPROACH

Planning for the Fernald Citizens Task Force began with DOE Fernald and its contractors in early 1993. Since that time, a great deal of time and energy has been devoted to the development and operation of the Task Force. A timeline of key activities are identified below and described in detail in the following sections.

- January 1993* DOE and its contractor begin organizing ideas for
- *February 1993:* establishing an SSAB at Fernald.
- March 1993:* DOE decides to use an independent convenor to establish
SSAB, identifies criteria for convenor.
- April 1993:* Search for convenor.
- May 1993:* Dr. Eula Bingham hired as convenor, begins work on
charter and identification of potential stakeholders.
- June 1993:* Bingham works within Ross, Crosby, and Morgan
townships to evaluate stakeholders, receives
recommendations from local trustees.
- July 1993:* Bingham sends out letter to local residents announcing a
public meeting to discuss SSAB. Meeting is held, trustees
from all local townships attend.
- August 1993:* Bingham delivers membership slate to DOE, entire slate is
accepted. Bingham selects John Applegate as Chair.
- September 1993* First meetings of the Task Force held. Group works to
- *November 1993:* complete charter and develop ground rules. Focus is on
site orientation and background.
- December 1993:* Douglas Sarno hired as consultant to Task Force.
- January 1994:* Task Force approves 18 month work plan.
- February 1994* Focus on technical site information and evaluation of
- *August 1994:* alternative future uses and cleanup levels. FutureSite
exercise is developed to evaluate alternative future uses.
- September 1994:* Task Force finalizes and approves consensus values.
- November 1994:* Task Force releases Interim Report identifying
recommendations for cleanup levels and future use.
- December 1994:* Task Force approves revised work plan for 1995 activities.
- January 1995:* Task Force holds public workshop to discuss waste
disposition issues.
- February 1995:* Task Force releases waste disposition recommendations.
- April 1995:* Task Force releases recommendations on site priorities.
- May 1995* Task Force releases final future use recommendations.
- July 1995:* Task Force releases final report.

Convening the Task Force

Though small in size by DOE standards, Fernald has established a large national reputation, including being featured on the cover of *Time* magazine. In the 1980s, when it was discovered that the Fernald facility had been contaminating local drinking water for many years, the Department was sued by local residents and paid out significant damages for this contamination. Strong grassroots citizen activity was established and trust of the Department and its contractors was nonexistent. In 1985, the Fernald Residents for Environmental Safety and Health (FRESH) was established and has been among the leaders in reforming remediation efforts throughout DOE. The 1991 revised Consent Agreement between DOE and EPA stipulated that a number of important and far-reaching decisions about the cleanup of the facility were to be made over a several year period. As this work progressed, DOE managers at Fernald recognized that many of these decisions would have a profound impact on the long-term interests of local citizens and that direct citizen involvement was therefore essential to developing sound decisions. In the spring of 1993, DOE decision makers at Fernald decided that a citizens advisory board would be the most effective means of getting focused stakeholder input to the most pressing issues regarding remediation of the facility.

About the same time, a model of citizen participation was emerging from the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC) as described in its February 1993 Interim Report. The Executive Summary of this report is included in Appendix A. The report recognized that those individuals affected by the cleanup (affected stakeholders) were not provided sufficient opportunity for meaningful dialogue or input to the cleanup process and that better opportunities were needed for the full spectrum of stakeholder interests and concerns to be voiced. To rectify this situation, the report recommended creating independent public bodies called site specific advisory boards (SSABs) to provide policy and technical advice to the regulated and regulating agencies with respect to key cleanup decisions. The report suggested that the creation of SSABs would improve decisionmaking by:

- 1) Providing a setting for direct, regular contact between agencies and a diverse set of stakeholders;
- 2) Providing a forum for stakeholders and agencies to understand the competing needs and requirements of the government and the affected communities;
- 3) Providing a forum for discussing citizen issues and concerns, thus enabling the development of a more complete and satisfactory plan or decision;

- 4) Enabling citizen review and the evaluation of plans and their technical adequacy in more depth than is possible in most single opportunity public participation efforts;
- 5) Permitting a more detailed consideration of issues than is possible as a result of the minimal legal requirements identified in various state and federal laws; and
- 6) Broadening consideration of issues to include values as well as facts.

This concept was ultimately adopted by DOE, and the Fernald Citizens Task Force was established as one of the first SSABs in the nuclear weapons complex. To establish the SSAB, it was decided that an independent convener would be used to provide timely and fair identification of potential SSAB members. In May 1993, DOE hired from the University of Cincinnati, Dr. Eula Bingham, a former Administrator of the Occupational Safety and Health Administration. Her role was to identify potential candidates for membership on the board, interview the candidates, and deliver a slate of recommendations to DOE. Over the course of the summer of 1993, Dr. Bingham employed a combination of public meetings, mass mailings, and personal recommendations from local officials and stakeholder groups to identify potential candidates for the board. DOE accepted and duly appointed the complete slate of candidates presented by Bingham and the board was formally established in August 1993 as the Fernald Citizens Task Force.

To give the board initial direction, the convener was also asked by DOE to identify a chair for the Task Force and to develop a draft charter for the board in conjunction with the DOE, the U.S. Environmental Protection Agency, and the Ohio Environmental Protection Agency. Dr. Bingham identified John Applegate, a professor of environmental law at the University of Cincinnati, to serve as the chair. The charter she drafted laid out a mission for the Task Force focused on four specific and far-reaching issues: future use, cleanup levels, waste disposition, and cleanup priorities for the Fernald site.

Membership

The slate identified for membership on the Task Force by Dr. Bingham included 14 members and two alternates. Two identified members cited time constraints and asked not to be placed on the board. One stepped down completely and another switched places with an alternate. An additional individual petitioned for membership immediately after the board was established. The charter members recommended to DOE that he be appointed, which was done, bringing the total membership back to 14. Representatives from DOE, EPA, and OEPA were each placed on the Task Force as non-voting *ex officio* members. To provide for member continuity over time, half the members were given two year terms and half were

given three year terms. This report was completed within the original terms of all members and all fourteen members have served on the Task Force for the entire period. The alternate members were kept fully informed of all activities of the Task Force; however, they attended no meetings and did not participate in any Task Force deliberations.

In accordance with the FFERDC report, the fourteen members of the all-volunteer Task Force represent a broad spectrum of interests and backgrounds that are critical to the cleanup decisions at Fernald. Eight members live or work in the direct vicinity of the site. The remaining members were selected to reflect a combination of skills, interests, and constituencies that are important to the remediation of the Fernald property. All live and work within the greater Cincinnati area. Brief profiles of members are provided in Appendix B.

Charter and Ground Rules

The first few meetings of the task Force were devoted to site orientation and determining a path forward as a group. Using the charter drafted by Dr. Bingham as a starting point, the Task Force worked in these first few months to clearly identify its mission, formalize the charter, and develop ground rules. The Charter and Ground Rules are included in Appendix C.

The Task Force formally reports to the Assistant Secretary for Environmental Management for DOE, the Regional Administrator of EPA Region V, and the Director of the Ohio EPA. This report represents the completion of its original charter to provide recommendations regarding future use(s) of the Fernald property, cleanup levels, cleanup priorities, and waste disposition.

Organization and Staffing

Task Force meetings were held monthly, originally on a weekday evening and then on Saturday mornings to provide more time. Every effort was made to hold these meetings in the direct vicinity of the site, however space requirements and the desire to keep costs down resulted in the meetings being held in a number of locations, some further away. All meetings were open to the public and widely publicized in local papers and through mass mailings. Sufficient space for public attendance was always provided.

Most of the Task Force's work was conducted in the regular monthly meetings of the entire Task Force. On several occasions, important issues were raised which were either outside of, or more in depth than, the immediate scope of the Task Force mission. In these instances, the Task Force elected to establish a subcommittee to address the issue and report back to the total board. Subcommittees generally contained three to five board members and were chaired by a member charged with

completing the product required. In total, three subcommittees were formed to address membership, groundwater cleanup standards, and waste disposition issues.

In accordance with the Charter, the Task Force chair was responsible for overall organization and administration of the Task Force. Administrative support was provided by DOE's site contractor, FERMCO. One full-time professional staff member and needed clerical support worked under the direction of the chair to provide the many organizational and logistical activities necessary to plan and run Task Force activities. In addition to this dedicated staff, FERMCO provided continuous and invaluable support to all aspects of Task Force operations.

The Task Force believed that it was also essential to obtain independent technical support to assist in developing accurate information. To achieve its ambitious mission, the Task Force realized that it had to focus its time and energy effectively to make the best use of limited resources. Meeting more than once per month for approximately four hours was seen as untenable. Though certain individuals were able to devote more time, most were not. The Task Force realized early on that significant staff support was needed to help gather and synthesize pertinent information and develop a detailed decision-making process if they were to provide meaningful input in the time allotted.

The Task Force decided that technical and facilitation support was best obtained outside of DOE and the site contractor. This would provide the needed combination of independence and neutrality in a trusted technical resource for the issues that they were charged with addressing. The Task Force created a selection subcommittee and, working with DOE, selected and contracted with Douglas J. Sarno of Phoenix Environmental. Sarno began working with the Task Force in December 1993. In addition, the Task Force retained funds to contract with outside experts on specific issues should the need arise. This was done only once, to hire an expert to review risk assessment results for cattle grazing on leased property at the Fernald site.

Approach to Achieving the Mission

In its first months, the Fernald Citizens Task Force established a general strategy for conducting its business. Because of the enormous breadth of its mission, a clear organization of issues was needed to focus the Task Force's efforts. The site decision making process was well under way and considerable time pressures were placed on the Task Force. It became apparent to the Task Force that a decision with regard to the future use of the Fernald property following remediation would both give direction to its deliberations and also provide needed insight to all of the recommendations required of the Task Force. Remediation levels were directly tied to the exposure scenarios generated as a result of the expected future use of the property. These risk levels, in turn, would drive total volumes of waste material, which would help to determine appropriate locations for the long-term disposal of

wastes, and ultimately the desired timing of activities. Thus, the Task Force envisioned future use as the center of its decision-making process.

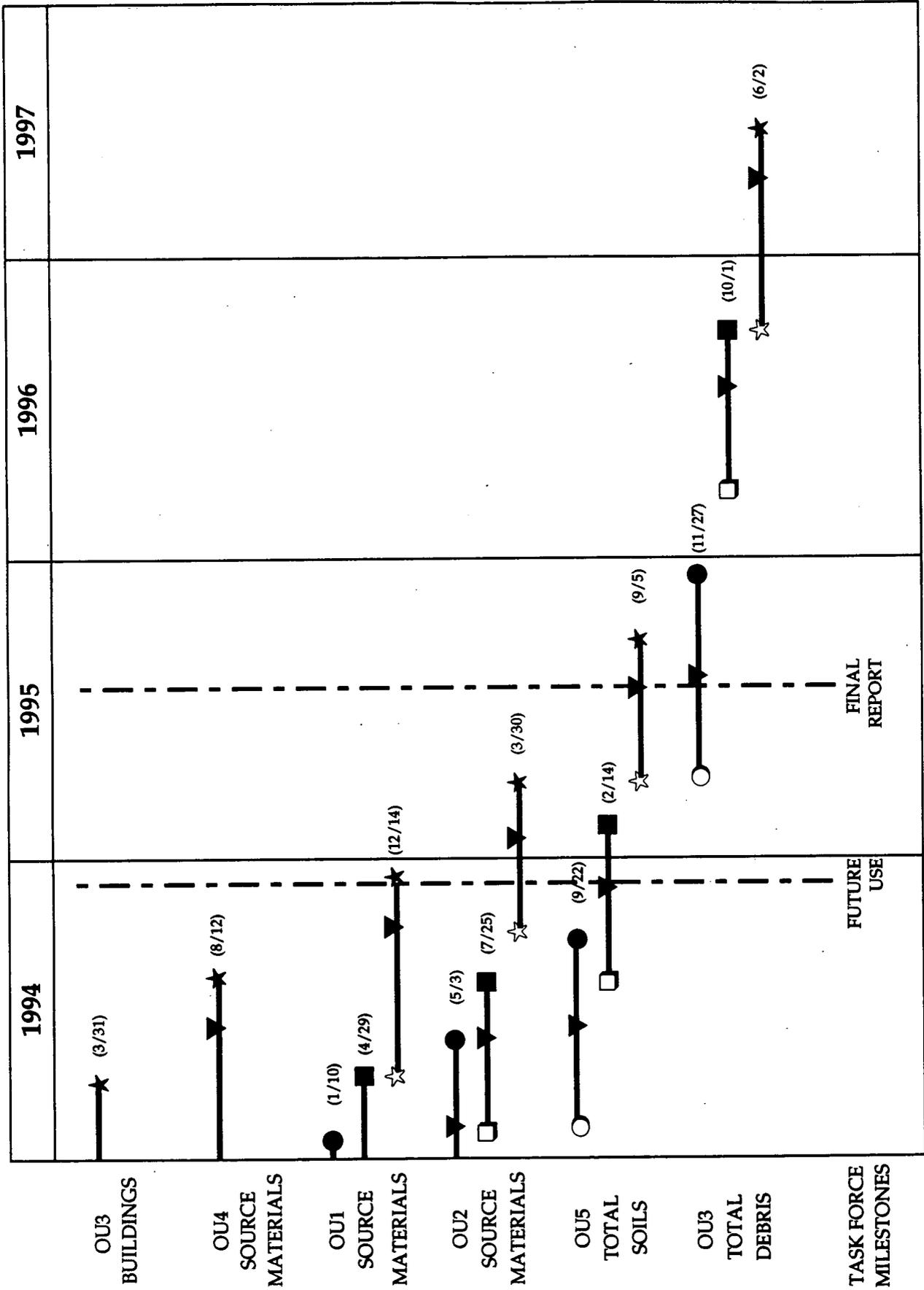
The first task for the Task Force consultant in December 1993 was to develop a detailed work plan for the Task Force to achieve its mission based on this future use focus. It was essential to schedule the decision making process so that needed information was developed and recommendations were made in time to affect DOE decision making. The Task Force was feeling pressure in that the DOE decision-making process was already well along, there was not sufficient time to catch up, much less provide meaningful input into the process. Indeed, several of the five operable units were well on their way to Records of Decision.

To overcome this dilemma, the workplan was developed by first defining the existing timeline for DOE decision making at the site and identifying where the Task Force would have to provide input in order for its recommendations to be effective. In doing this, it was realized that the key decisions in which the Task Force would be providing input were actually not to be made for another 18 months, at the time of the operable unit five Record of Decision. This gave the Task Force sufficient time to do their work with the level of detail they desired. A detailed workplan was then developed to follow an 18 month schedule focusing on the four key recommendations that the Task Force must make. This schedule is shown in Figure 4. A key to this workplan was the conscious decision of the Task Force not to review and evaluate each decision and piece of information that would be released by DOE over that time period, but to focus solely on achieving its own objectives in the time available. As the work progressed, the Task Force learned a great deal about how site decisions were being made and the potential impact of the Task Force on decision making. Following the release of its interim report in November 1994, the Task Force refocused its efforts for the remainder of its 18 month program. As a result, a new work plan was developed to further define and refine activities for 1995.

Getting Broad Public Involvement

The Task Force recognized from the beginning of the process that it could not represent the full public interested in the Fernald remediation. Therefore, a number of ongoing activities were put into place to ensure that the broader public opinion was gathered as input to all Task Force recommendations. Particular focus was placed on public input surrounding the most controversial decisions, such as waste disposition. To ensure all sides of the issue were heard, the Task Force mailed personal invitations to stakeholders identifying the issues and decisions to be addressed in upcoming meetings. Two Task Force sponsored workshops were held to ensure public understanding and involvement in cleanup levels, future use, and waste disposition issues. Specific activities conducted to ensure public

Figure 4. SCHEDULE OF FERNALD DECISIONS AND KEY TASK FORCE MILESTONES



KEY: ○ Draft RI ● Final RI
 □ Draft ROD ■ Final ROD
 ☆ Draft FS ★ Final FS
 ▼ Draft to EPA

understanding of, and comment on, the Task Force's process and recommendations have included:

- open monthly meetings with active public participation,
- a June 9, 1994, public workshop on the FutureSite exercise,
- a January 25, 1995, public workshop on waste disposal options,
- presentations at the February 1994, June 1994, October 1994, and March 1995 DOE community meetings,
- face-to-face meetings between the Task Force chair and members with other stakeholder groups,
- attendance by members and staff at all DOE public meetings and workshops,
- a Task Force mailing address and message line for public comment,
- disseminating information through community channels,
- news releases,
- advertisement of all meetings in local papers.

A summary of public outreach activities and comments received is presented in Appendix D.

IV. TASK FORCE DECISION MAKING PROCESS

Goal Setting and Planning

Creating clear focus was a key component of the Task Force's success. Clear goals were established with regard to the four areas in which the Task Force was to develop recommendations. Using these goals and an understanding of the activities required to achieve them, a detailed workplan was developed in which the purpose of each meeting was clearly identified. By identifying a clear path forward, the Task Force was able to avoid some of the burnout that often occurs early in a long-term process when little progress is apparent. Each meeting was clearly scoped out in the workplan which spanned the full eighteen month period. In particular, focus was placed on identifying the specific questions to be addressed in the meeting, the information to be evaluated, and the expected outcome of each meeting.

Developing and Disseminating Information

When the Task Force was first established in August 1993, the site investigations had been underway for several years. Not surprisingly, the Task Force was well behind site officials in its level of knowledge about site characteristics and cleanup alternatives. To bring them up to speed, it was determined that much of the first half of 1994 would have to be approached as a learning period. This presented several challenges: how to present large volumes of detailed technical information to a group of individuals with a variety of backgrounds and experiences and in a very short period of time, and how to keep the group's interest over a period of months when little action or progress would be perceived. These challenges were met by approaching the group as executive decision makers—focusing on the decisions that had to be made and the information critical to making those decision, rather than simply trying to present all of the information that was available. It was clear that to do the latter would result in information overload and paralyze the process.

It was the job of the consultant in conjunction with the chair to make the initial determination as to which information was critical to decision making and to present it to the board. These information needs were incorporated into the workplan and then discussed and amended with the entire group. It was then up to the entire group to finalize the level of detail and type of information that was needed to make the decisions at hand. In this way, the group understood what was to be presented and discussed at each meeting and was invested in the process itself.

Gathering and presenting information was done by the consultant. One important function of the information presented to the Task Force was to overcome

individual preconceptions about the site and cleanup options, and work as a group to develop sound solutions. This could only be done if the information was accurate and unbiased and presented to them in an understandable and useful form. It was determined early on that to attempt to gather or develop new site information was simply not practical. However, it was clear that the formats of existing information did not fit the needs of the Task Force. The consultant, therefore, identified the information needs and worked closely with the DOE and site contractor to obtain the needed information. The consultant then created formats for use by the Task Force to portray the information in the most effective manner for decision making. Once the chair and the consultant were confident that the information was accurate and useful to the Task Force, it would be formally placed in the Toolbox and a Task Force logo affixed. Other information was used occasionally if necessary, but not placed in formal Task Force format.

Another important function of the Task Force consultant was to evaluate the validity of the information presented to the Task Force. Early in the process, there was a great deal of mistrust in the information coming from DOE. The consultant would explain the origin and utility of the information presented so that members understood how it related to their deliberations. The Task Force was given open access to site staff and information and often this resulted in information given to the Task Force as soon as it was created. This sometimes resulted in key pieces of information changing over the course of Task Force deliberations. Because of the way the information was presented and the role of an independent consultant, these changes were simply incorporated into the decision process. Much of the information and formats used for the Task Force were used later by the site, and the level of trust in this information remained high.

To discuss this information during Task Force meetings, materials were enlarged into posters to allow the entire group to work together. A cornerstone of each meeting was also an "information bin" which was used to record questions and issues that were not yet addressed by existing information and were deemed important. It was the job of the consultant to answer these questions by the following meeting.

About halfway through their decision making process, the Task Force had caught up to the site decision making to the degree that it was requesting information and considering issues that had yet to be contemplated on site. In several instances, Task Force requirements led site decision makers to create understandings of information in new and useful ways for both the Task Force and the site.

Decision Making Approach

Early in the process, members of the Task Force realized that decision making could not proceed until some vision of the future use of the Fernald property was

established. As previously discussed, the work plan and the entire Task Force approach was built upon this understanding. Therefore, the future use of land and natural resources on and surrounding Fernald were the first order of business for the Task Force.

The Task Force began by identifying a broad range of plausible uses for the Fernald facility following cleanup. Next, the Task Force identified all of the issues and concerns that were important to consider in evaluating options for the future of Fernald. These issues were refined and incorporated into Consensus Values for the future use of Fernald and are presented in Figure 5. These consensus values were used throughout the decision-making process to provide guidance for the development and evaluation of alternative recommendations. In addition, these concepts were further distilled into the discrete evaluation criteria listed below:

Long-term Safety: effectiveness of available technologies over time, long-term monitoring, and ownership of the Fernald property are seen as crucial to the long-term acceptability of any cleanup scenario.

Short-term Risks: risks to workers and residents resulting from the cleanup activities themselves are of paramount concern.

On-Site Disposal Requirements: the volume of soil that will be excavated and the ultimate size of any on-site disposal facility will greatly determine the overall impact of the cleanup on local communities during and after construction.

Impact on Natural Resources: excavation of the large quantities of contaminated soil present at Fernald will have a significant impact on the flora, fauna, sensitive habitats, farmlands, and wetlands that comprise the Fernald site and surrounding properties.

Transportation and Off-Site Disposal Requirements: the Task Force is sensitive to the impacts on and potential risks to communities along transportation routes and at the ultimate disposal facility.

Community Impacts and Benefits: disruption of adjacent lands and the long-term economic, social, and aesthetic impacts on local communities and work force of the Fernald cleanup are likewise of significant importance.

Cost: as a taxpayer-funded project, the total cost of cleanup is important. While Task Force members repeatedly expressed their unwillingness to trade lives for dollars, the Task Force recognizes that DOE budget projections indicate real limitations on available resources in the future.

Figure 5. TASK FORCE CONSENSUS VALUES

ENVIRONMENTAL VALUES

- Identify and preserve significant natural ecosystems with a special emphasis on naturally occurring wetlands, Paddys Run, and threatened and endangered species.
- Minimize impacts on the environment during remediation and maximize restoration of environment after remediation.
- Ensure that any waste left on-site be controlled to prevent further contamination of the Great Miami Aquifer, air and soils on and off-site.
- Any future site use must be protective of the environment.

SOCIAL AND HUMAN VALUES

Future uses must have a positive impact on the surrounding communities, including:

- Acceptable risks to the current and future residents and workers of the Fernald community with a special emphasis on the effects on children and future generations.
- Input and involvement from the public at large.
- Compatible with current and projected off-site uses.
- Special emphasis on promoting history, research, and education.
- Demonstrating how a negative situation can be turned into a positive by not repeating the mistakes of the past which resulted in the current conditions at Fernald.

ECONOMIC VALUES

- Emphasis should be placed on future uses which provide some level of continuing employment for area residents, but not necessarily in categories that have traditionally been present at the site.
- Future uses and ownership should be structured so that local tax revenues or payments in lieu of taxes are provided.
- Where practical, infrastructure should be used to enhance the suitability of the property for future use subject to environmental and health values.
- The cleanup of the Fernald facility should be done in such a way as to reduce the stigma of past practices at the site and assist in the continuing use and development of surrounding properties.

LONG TERM MANAGEMENT VALUES

- A long-term control mechanism for the site must be established to ensure the perpetual moral and financial responsibility of the Federal government for the continued management, monitoring, and emergency response capability regarding all wastes left on the facility.
- Long-term uses and institutional control mechanisms must be reconciled with local zoning and planning.
- All selected uses resulting in waste being left on site must have the built in flexibility to provide for future changes in use and better cleanups should financial, technical, or demographic changes warrant.
- A long-term mechanism must be established to ensure citizen involvement in the control, management, and future decisions at the site

GENERAL USE VALUES

- Any future use plan must recognize that a mixed use strategy may be the most effective for the long-term use of the site.
- Emphasis should be placed on reducing the physical barriers and physical evidence of the past use of the site and focus on ways that Fernald can be a better neighbor to the surrounding community
- Under no circumstances should a post-remediation future use be permitted at the facility which requires the importing of hazardous, radioactive, mixed or solid waste for any reason.
- All uses and cleanup plans for all waste, shipments, and treatments must explicitly recognize all political, safety and health impacts.
- Future uses of the site must be focused on non-hazardous activities.

By constantly weighing the pros and cons of alternatives as they related to these criteria, the Task Force was able to narrow options and ultimately to reach consensus. The Task Force did not use any formal quantitative models to conduct these analyses, and, other than overall health and safety, no one criterion was clearly ranked as more important than another. Instead, a number of tools were developed to help to create a complete understanding of the opportunities, constraints, risks, costs, and benefits associated with alternative approaches to remediation.

Ultimately, decisions were arrived at through a parliamentary process. Once all aspects of a decision were thoroughly discussed, a motion from the floor was offered that approximated the sense of the group. If the motion was seconded, detailed discussion would then ensue to refine the language to represent exactly what the Task Force wished to get across. Often, these motions would require a detailed discussion of rationale and constraints on the recommendation being proposed. The Task Force would generally map out these supporting arguments and task the chair to develop a formal recommendation for approval at the following meeting. The chair and the consultant would prepare the formal recommendation between meetings and circulate drafts for review. This allowed all members to consider fully the ramifications of the recommendation and for absent members to review and evaluate the recommendation before approval. Additional discussion and amendment would be conducted at a subsequent meeting before the final recommendation was brought to a vote.

Decision Making Tools

The main tool used by the Task Force was a system of organizing and presenting information. To get the information across, the consultant and the chair devised an approach at presenting information in as simple and clear a way as possible. Information for each decision was broken down into discrete pieces and organized to focus on the key tradeoffs or alternatives. Using heavy emphasis on charts, graphs, maps, and tables and the use of color, most ideas were presented on a single sheet of paper. Rarely did a single concept require more than two or three pages.

All of the materials developed were organized into a single three ring binder for each member referred to as the "Tool Box," which was organized by different topics for easy reference. In some cases, information was readily available in existing site documents and modified for use by the Task Force. In other cases, the Task Force consultant worked directly with DOE and its contractor to develop the information required.

All of the information in the Tool Box was geared to providing the knowledge needed to understand the risk presented by the Fernald site and the various costs and benefits of the alternatives the Task Force wished to consider. Key

information in the Tool Box included physical and chemical characteristics of Fernald and surrounding lands, current land and natural resource uses, information on risk and risk analysis, alternative cleanup levels, waste management options, and detailed descriptions of alternative future use scenarios. The future use descriptions are supplemented by charts and maps showing volume, cost, disposal cell size, and off-site transportation requirements for different options. Also included are color-coded maps that identify the scope and depth of excavation of soil required for each alternative. Selected figures and tables used in the Tool Box have been used as figures in this report and are further included in Appendix E.

Another decisionmaking tool was an exercise called FutureSite to show how achieving different levels of land use impacted the cleanup requirements for the site. In particular, it provided an insight into costs and volumes resulting from the remediation of contaminated soil to achieve different objectives. The exercise was designed as a three dimensional representation of contamination at the site. A large site map was divided into a grid, with each square containing a stack of colored chips representing the actual volumes of contaminated soil and materials found at that location on the site. By removing different color chips from the board, participants could illustrate the volumes of contaminated material that would have to be moved to achieve different land uses. The cleaner the participant required the site, the more material would have to be removed from the board. The participant would then be forced to make the decision as to what to do with that material, either on-site or off-site disposal. Associated costs and requirements were then applied to calculate total volumes and costs of the selected option, truck and train transport requirements, and the size of on-site disposal facilities. This exercise formed the foundation for understanding the waste disposition and cleanup level decisions that were to be made. The exercise was used widely throughout the site by DOE and the contractor as well and helped shape and widen perceptions and understandings of the site. Through many repetitions by different groups, several remediation and future use scenarios were developed which could be compared and evaluated. Analysis of these scenarios was the first step in reaching consensus on future use and cleanup levels.

Another tool that was used extensively in decision making was a magnetic white board portraying the site and major attributes of the site remediation problem. The Task Force used magnetic blocks, wipe-off markers, and clear overlays to portray and compare remedial options. This board allowed the Task Force to physically portray and work through the many options available regarding future use partitioning of the site, cleanup level zones, impacts of remediation, and size and location of on site disposal facilities. These tools, combined with the Tool Box, provided the focus for decision making needed by the Task Force.

Additional information regarding Task Force operations has been provided in Appendix F: Summary of Task Force meetings and Appendix G: Task Force Budget and Administration.

V. TASK FORCE RECOMMENDATIONS

All of the recommendations presented in this report have been previously reported to DOE, EPA, OEPA, and the public in order to make the most immediate impact on the decision making process. The first recommendations on cleanup levels and preliminary future use were presented in November 1994 in an interim report which also described the process that had been used to that point. Subsequent recommendations on waste disposition, priorities, and final future use were developed and released as fact sheets in February, April, and May 1995, respectively.

We recognize that these are recommendations only, and that we are not in a position to make actual decisions. Still, we approached these recommendations as we would have had we been decision makers. We believe the value of this Task Force as an addition to other forms of direct citizen involvement is in the attempt to bring a diverse group of interests together to recommend one approach to remediation that everyone can support, rather than each individual or group continue to express the position that best supports their specific interests. As such, the focus throughout our process has been on ideas and not individual preferences. Coming into this process we all had very different expectations and preferences regarding the remediation of Fernald. These recommendations are the result of careful and thorough consideration of all of the important health, social, economic, and political constraints and ramifications associated with remediation of the Fernald property. These recommendations do not represent a negotiating position, but are our best effort at developing a reasoned and balanced approach to remediation. We believe that these recommendations, if taken in total, will provide remediation of the Fernald property that is protective of human health and the environment, maintains the integrity of surrounding communities, and prevents unnecessary expense.

Recommendations on Site Cleanup Levels

Summary

The recommendations of cleanup levels were presented in the Task Force's interim report in November, 1995. The Fernald Citizens Task Force identified specific cleanup levels based on total uranium in soil and groundwater as this makes up the bulk of the contamination at Fernald. Of primary concern to the Task Force in establishing these cleanup levels was protection of the great Miami Aquifer and consistent protection of human health across all media and land uses. The Task Force sought to balance the absolute requirement to protect human health and safety with the desire to minimize the impact on the environment resulting from remediation itself. To achieve background conditions would require surface soil excavation for five miles surrounding the site, a condition the Task Force found unacceptable. Ultimately, the Task Force arrived at recommended cleanup levels which were protective and required little off-site excavation. These levels were

based on cleaning and protecting the aquifer to conform with maximum contaminant levels under the Safe Drinking Water Act, keep cancer risks to within one in ten thousand, and non-cancer risks below a hazard index of one.

Detailed Recommendations

- Past impacts of the Fernald site on the Great Miami Aquifer must be remediated and any future impacts controlled so that groundwater quality meets the standards of the Safe Drinking Water Act.
- The excess risk of contracting cancer posed by exposure to Fernald contamination under any use of land, on or off the Fernald property, shall never exceed one in ten thousand (1×10^{-4}). This is a maximum level; the other recommendations of the Task Force regarding aquifer protection and hazard index override this risk level to make remediation more stringent. Additionally, the Task Force recommends limiting land use even in cases where the concentrations achieved in the soil would allow for less restrictive uses, to provide for an additional margin of safety.
- All contaminated soils and other waste sources both on and off the Fernald property must be reduced to levels that will provide safety from non-cancer toxicological effects at a level equivalent to a hazard index of one.
- All contaminated soils and other waste sources both on and off the Fernald property must be reduced to levels that will prevent contaminants from leaching into the aquifer at concentrations exceeding Safe Drinking Water Act levels.

Key Issues Evaluated

Because protection of the aquifer was one of the consensus values, The Task Force took an in-depth look at the options for dealing with groundwater contamination. We evaluated three distinct endpoints: cleaning to the 1×10^{-6} drinking water risk, which is 3 parts per billion (ppb) for uranium, cleaning to the EPA maximum contaminant level (MCL), which is proposed at 20 ppb for uranium (equivalent to a risk of 2×10^{-5}), and not cleaning at all but letting the aquifer flush itself over time.

In comparing these alternatives, the Task Force evaluated a wide range of issues. Due to the prevailing groundwater flow through the Fernald site, all contamination would ultimately reach the Great Miami River where the volume of water would dilute the contamination to low levels. The primary threat of the contamination to drinking water sources has been largely checked by homeowners seeking alternate sources and a new water line currently being installed. On the

surface, it appeared that dilution might be a viable approach to dealing with groundwater contamination. However, if left unchecked, as much as four thousand surface acres and 32 billion gallons of water would ultimately be impacted requiring widespread condemnation of the aquifer for many generations according to current projections. The Task Force views the social, environmental, and potential legal and administrative costs of such an approach as unacceptable.

The Task Force also evaluated measures to contain the contaminated groundwater within the site boundaries. The current pumping wells appear to have successfully stopped migration of the south plume. However, any such interim or containment measure would only result in the need for virtually perpetual action due to the long half-life of uranium. Thus, interim or containment measures would require repeated replacement of water treatment facilities at the end of their useful lives, approximately every thirty to forty years. With the constant risk of losing funding for new construction activities, the Task Force was not willing to take such an approach. Ultimately, such approaches would result in higher costs than for a total and rapid cleanup today. Decisive action now will be able to provide cleanup to MCLs within the life span of a single treatment plant.

The Task Force concluded that Fernald's impact on the Great Miami Aquifer is a significant concern and the only viable course of action is to seek a complete and rapid cleanup. The Task Force opted to recommend cleanup to MCLs. MCLs are widely accepted, protective of human health and the environment, and both technologically and practically achievable. The Task Force believes that attempts to clean up the aquifer to 1×10^{-6} levels would likely result in a great deal of expense to chase very little contamination, would require much longer periods of time to achieve results, and offer little ultimate benefit in the overall protection of human health and the environment.

In looking at cleanup levels for soils, the Task Force evaluated risks throughout the range of risks considered acceptable by EPA for Superfund cleanups of 1×10^{-4} (1 in 10,000) to 1×10^{-6} (1 in 1,000,000) excess chance of contracting cancer in a lifetime. The Task Force evaluated this range of risks across a broad spectrum of land uses in evaluating the overall level of cleanup that should be required at Fernald. Evaluating the impacts of applying different risks across different land uses allowed the Task Force to compare numerous factors including total soil volumes requiring excavation; off-site disposal requirements; on-site disposal requirements and disposal cell size; total cost; environmental impacts; and technical, legal, economic, and social implementability. The most striking concern in making this decision was the volume of soil that would require excavation beyond the Fernald property boundary if a 10^{-6} residential scenario were chosen. At this risk level, a total of 5,200,000 cubic yards of soil would be removed from off property alone. Disposal of this amount of material combined with the on-site volumes would require a disposal cell of approximately 400 acres, and approximately 430,000 truckloads or 1,350 trainloads for shipment.

The Task Force is also concerned about the serious ecological damage that would occur from widespread excavation. At 1×10^{-6} cleanup levels, the required excavation would rob 11 square miles of surrounding homes and farmlands of vital top soil, mature trees, and vegetation and would cause enormous disruption to lives and livelihoods during construction. Though ultimately the top soil would be replaced and vegetation replanted, it would be generations before the ecosystems fully recovered. The short-term risks to current residents and workers due to disturbance and resuspension of contamination and construction accidents far outweigh the very small reductions in long-term risk that would be achieved. Moreover, because the 5 ppm cleanup level for resident farmer at 1×10^{-6} is so close to background levels of uranium of 3.7 ppm, it would be difficult to even distinguish where this contamination occurs. Finally, it is important to the Task Force that risk criteria be consistently applied across the site and 1×10^{-6} was rejected as an option for groundwater cleanup.

The Task Force looked carefully at the levels of contamination that have actually been found off the Fernald property. Several interim cleanup (removal) actions and the tilling action of farming on much of the off property land has resulted in eliminating much of the detectable contamination. In all cases, the contamination is well below the cleanup requirements to protect for a resident farmer exposure at 1×10^{-4} (130 ppm), and only marginally above the resident farmer requirements at 1×10^{-5} (15 ppm). It is only as we approach background (3.7 ppm) that uncertainty would drive high volumes of soil removal. Taking into consideration the existing low levels of contamination found off the Fernald property and the desire to limit the disruption of off-site homes and farms, the Task Force decided on a maximum residual risk from Fernald soils of 1×10^{-4} .

The Task Force selected the 1×10^{-4} risk, however, with the full understanding that uranium concentrations in soil necessary to meet the goal of fully protecting the aquifer to MCLs over the long term are even more stringent. At most locations both on and off the Fernald property a total uranium concentration of 100 ppm is required to prevent leaching into the aquifer above MCLs, which is lower than the 130 ppm concentration necessary for a resident farmer exposure scenario at 1×10^{-4} . Further, as a result of the high solubility of uranium found in the former production and sewage treatment areas, the uranium concentration required to protect the aquifer in these areas is 20 ppm. Additionally, the Task Force's commitment to safe cleanup levels requires the consideration of toxicological impacts in addition to carcinogenic impacts. For uranium in a resident farmer scenario this requires cleanup to 50 ppm in order not to exceed a hazard index of 1. In taking this approach, the Task Force has deliberately provided a level of protection above the stated risk maximum. This 50 ppm concentration would apply at all off-property locations, but not on the Fernald property as the Task Force does not recommend allowing such intensive uses of Fernald. However, sampling results to date indicate that there are actually few places outside the former production area where concentrations actually exceed 50 ppm already.

In sum, the specific cleanup levels for total uranium recommended by the Task Force for the Fernald facility are as follows:

- 20 ppm within the former production and sewage treatment areas,
- 100 ppm within all other points on the Fernald property,
- 50 ppm for all locations off the Fernald property.

As noted above, we understand that, for the most part, cleanup of total uranium to the levels recommended will result in the excavation and safe disposal of all of the contaminants of concern found at the Fernald site. There will be exceptions, however, and for them our general clean-up criteria apply:

- cancer risks not to exceed 1×10^{-4} ,
- protection of aquifer to MCLs,
- non-cancer risks not to exceed hazard index of 1.

Recommendations on Waste Disposition

Summary

The Fernald Citizens Task Force evaluated the political and logistical considerations involved in disposing over three million cubic yards of contaminated material and determined that a balanced approach in which some waste was disposed on site and some was disposed off-site was most prudent. Of paramount importance was that the highest level wastes be taken off-site for safe disposal and that no new wastes come to Fernald for disposal. The Task Force, therefore, concurred with existing DOE decisions that the most highly contaminated materials be disposed off-site and then recommended that an on-site disposal facility be constructed to accept materials with low levels of contamination from the Fernald site only.

Detailed Recommendations

The Fernald Citizens Task Force recommends the construction of an on-site disposal facility to accept, from the Fernald site only, materials solely with low levels of contamination meeting the site-specific waste acceptance criteria. However, on-site storage of low-level materials at Fernald is acceptable only in the context of the considerations laid out in the following section and under the following conditions, such considerations and conditions being inseparable from the recommendation:

- The Fernald Citizens Task Force strongly and unanimously opposes the use of the Fernald site for the permanent disposal or long-term storage of any waste or contaminated materials originating from other locations.

- Any on-site disposal facility will be built for long-term performance using the best design, technology, and engineering available.
- Any on-site disposal facility at Fernald will be designed to make the least possible negative aesthetic impact. The Fernald Citizens Task Force and the public at large shall be explicitly involved in the process for determining the ultimate appearance of the disposal facility.
- Any on-site disposal facility at Fernald will provide an adequate buffer area to minimize negative impacts to neighboring properties and the future use of the Fernald property. The Fernald Citizens Task Force and the public at large shall be explicitly involved in the planning and design process for the disposal facility.
- The U.S. federal government will retain permanent ownership of any property containing the disposal facility.
- The U.S. federal government will continually monitor the disposal facility and report these findings in a timely manner to residents and interested parties.
- The U.S. federal government will commit to retrieve and treat or redispense of the material contained in the disposal facility if a new, proven, and economically justified technology to manage these materials should become available.
- The U.S. federal government shall have in place adequate procedures to identify and correct any and all failures in performance of the disposal facility before any increased risk to public health occurs.
- The U.S. Department of Energy commits to the above conditions.

U.S. Department of Energy budget adjustments in the short or long term will not adversely impact the substance of this recommendation.

Key Issues Evaluated

Waste disposition was the most difficult decision faced by the Fernald Citizens Task Force and the only one in which complete consensus could not be achieved. The Task Force spent a great deal of time collecting and evaluating data regarding the ramifications of on-site *vs.* off-site disposal. A great deal of time was also spent in working with other local stakeholders through meetings and workshops. The evaluation of disposal options actually began with the FutureSite exercise where it first became evident how many trucks or trains would be required to haul the millions of cubic yards of material off site. It was this realization

combined with the associated short-term risks of transportation that most members found to be most compelling in recommending on-site disposal.

Another compelling argument was the desire to get the most hazardous materials off the site as soon as possible. A balanced approach in which Fernald showed willingness to deal with at least part of the problem on site was seen as the most prudent in achieving this goal. It was strongly believed that exhibiting an unwillingness to deal with part of the problem at Fernald would result in political ramifications from receiving states with the result of not being able to get any waste sent off site. Additionally, most Task Force members were very sensitive to the safety concerns of other citizens living along transportation routes and in the vicinity of receiving facilities.

The need to explain fully the decision rationale for selecting partial on-site disposal was seen as strong enough to make the considerations for the recommendation part of the recommendation itself. These considerations are presented in the following paragraphs.

All members of the Task Force live or work in communities that are impacted by the decisions being made at Fernald, and eight of 14 live or work in the direct vicinity of the site. No member of the Task Force wishes to see contaminated materials from Fernald or any other location stored on the Fernald property indefinitely. As it adjoins residential and agricultural lands and is situated directly above a sole source aquifer, Fernald is far from an ideal location for disposal of contaminated materials. Nevertheless, we are aware of the many engineering, political, and financial challenges facing a project the size of the Fernald cleanup. Our primary goals are protecting human health and the Great Miami Aquifer. The Task Force believes that a balanced approach to cleanup, in which the most hazardous materials are disposed off the Fernald property and the least hazardous materials are stored safely on the property, is the most effective way to achieve prompt and enduring protection for the communities surrounding Fernald. The Task Force ultimately arrived at this recommendation in consideration of the following issues, the understanding of which is critical to the entire recommendation:

- The more quickly source materials are taken out of the environment, the better the aquifer is protected and the more quickly it can be restored. The Fernald Citizens Task Force believes that an on-site disposal facility is the quickest way to protect the aquifer and the overall environment.
- The hazard of the material to be placed in the on-site disposal facility is very low. The maximum level of contamination that will be allowed in the disposal facility would allow for a land use as a developed park under cleanup levels recommended by the Task Force. The material is to be contained in a disposal facility solely for the purpose of protecting the aquifer over the long-

term, and failure of the disposal facility would not present any immediate or significant threat to human health.

- In the off-site option, the risk of transporting the expected 2.4 million cubic yards of low-level contaminated soil and debris from the Fernald site to Utah and/or Nevada includes an estimated six fatalities to the public along the transportation routes, while relatively little health and safety risk is incurred by the public under the on-site option. Both on and off-site options require similar levels of work in excavating, loading, unloading, and disposing of materials; therefore, the risk to remediation workers in both options is roughly equivalent. The Fernald Citizens Task Force believes the on-site option is the most responsible with regard to overall safety.
- The cost of off-site disposal is three times that of on-site disposal. The Fernald Citizens Task Force believes that under current and foreseeable budget conditions, an off-site decision would greatly delay cleanup and may prevent any progress at all. An on-site disposal facility is thus more viable under the current budget and political constraints.
- Both states of Utah and Nevada have written to Fernald encouraging a balanced approach to cleanup. The Fernald Citizens Task Force is concerned that if the decision were made to send all Fernald waste and contaminated materials off site, we would face the likelihood of reprisals from other states resulting in our not being able to send any waste off site. The Fernald Citizens Task Force believes that it is of paramount importance that the off-site shipment of the most hazardous materials be the first priority of cleanup, and carried out expeditiously.
- Because the entire Fernald property is situated over a sole-source aquifer, only the lowest level materials, as defined by the site specific waste acceptance criteria, will be allowed into an on-site disposal facility. The waste acceptance criteria for Fernald were established by modeling the proposed disposal facility over a thousand year period to prevent any contamination from reaching the aquifer at levels that would exceed the federal maximum levels of contamination for drinking water. This modeling assumed only natural materials in providing protection of the aquifer and excluded consideration of man-made liners that are subject to failure over the 1,000 year period.
- The Fernald Citizens Task Force wants to prevent any waste or contaminated materials coming to Fernald from other sites for permanent disposal or long-term storage. Under the Federal Facilities Compliance Act of 1992, that potential exists. By managing the Fernald materials fairly and effectively, the Fernald Citizens Task Force believes we will be in a more equitable position to prevent a decision to send outside wastes to Fernald.

The decision regarding waste disposition was highly controversial. A very vocal public emerged opposing any contaminated material disposal on site. In order to fully listen to and evaluate all points of view, the Task Force spent a great deal of time on this decision, provided extra publicity for meetings, met with community members, and conducted a special workshop to present the information and materials being used in the decision making process. While ultimately the supporting considerations and conditions were approved unanimously, one member of the Task Force was unable to support the decision to place a disposal facility at Fernald. This member believed the arguments to recommend on-site storage of materials containing low level contamination were outweighed by the following:

- The contamination problems at Fernald did not evolve from local concerns or result in sufficient local benefit to warrant the long-term impact on local communities from a disposal facility.
- Facilities in the western U.S. are geologically better suited for the long-term management of this material than is Fernald.
- Local communities do not wish to incur the stigma associated with a disposal facility.
- A disposal facility on the Fernald property limits the land available for productive reuse by local communities.

Recommendations on Priorities for Remediation

Summary

Originally, site priority recommendations were envisioned as a sequencing of activities according to their importance to the concerns and goals of stakeholders. However, as dramatic cuts in the DOE budget began to occur, the nature of the problem shifted. Suddenly, the Task Force was faced with remediation time frames stretching out to 25 years and at total costs of twice what was expected in order to work within projected annual budgets. The most important aspects of cleanup for the Task Force were to remove the highest level contaminants from the site as quickly as possible and to conduct remediation as cost-effectively as possible. That combination left the most rapid cleanups as the only viable alternatives. As remediation schedules and logistics were evaluated for the accelerated remediation, it became clear that little opportunity existed to release some portions of land more rapidly than others, or to cost-effectively complete demolition of the production area before other activities. The Fernald Citizens Task Force recommended that Fernald accelerate remediation on a seven to ten year schedule to both provide rapid protection of human health and the environment and control overall costs.

Detailed Recommendations

As part of our charge to recommend site priorities, we are calling for a fundamental shift in the approach to remedial operations at Fernald. DOE and its contractor must view the project as an environmental remediation operation, period. It is their job to implement the remediation decisions that have been made, quickly, safely, and cost-effectively—and then to leave. If Fernald is to be really treated like the remediation project it is—where work should be focused on a single goal and completed in a finite period of time—management at all levels must make an immediate and decisive change. Such an approach has several important consequences for remedial priorities, and focuses attention on obstacles to remediation apart from the existing operable units. Its cornerstone must be to eliminate big sources of non-productive expense: high overhead, storage of materials awaiting shipment, and cumbersome Department of Energy requirements. Specifically, we would like to see immediate and substantial steps taken to deal with the following:

Special Nuclear Materials. There are 17 million pounds of special nuclear (non-waste) materials throughout the Fernald site, which require a high level of expensive security, accounting, and safety procedures to maintain. This material is not going to stay at Fernald. This material does not belong at Fernald now, as Fernald is an environmental remediation project. Storage and maintenance of this material is being done at the expense of remediation operations. Appropriate storage facilities already exist within the DOE complex for materials such as these. The Secretary of Energy and the Assistant Secretary for Environmental Management must ensure that DOE make and implement the decision immediately to move these materials to such an appropriate location.

Legacy Wastes. There are approximately 70,000 drum equivalents of legacy waste sitting at Fernald awaiting shipment and another 12,000 drum equivalents of mixed waste awaiting treatment and shipment. Again, the storage and maintenance of these wastes is diverting money from other much needed remediation activities. There is no mystery surrounding the location for disposal of most of these wastes, and their immediate shipment should be a top priority.

Safe Shutdown. When production ceased at the plant in the summer of 1989, it was conducted without taking the proper steps to bring the equipment and buildings to a safe configuration. As a result, millions are spent each year to maintain and provide security to buildings that should be closed and shuttered for subsequent demolition. Every effort must be made to expedite the safe shutdown of the Fernald facility to eliminate these burdensome overhead costs and hasten the shift in culture from operations to environmental remediation.

Ongoing Maintenance Activities. Another aspect of approaching Fernald as a remediation project is to discontinue the ongoing repair, maintenance, and

improvement to on-site buildings and infrastructure, except where essential to remediation progress or worker safety.

Overlapping Requirements. Perhaps the most cumbersome of all requirements facing the remediation of the Fernald site are those internally imposed by DOE on itself. Significant time and money is wasted by requiring remediation activities to comply with DOE orders that are geared to the operation of highly complex and dangerous nuclear operations. Where these orders are superfluous or are redundant of other state and federal regulations, DOE can and should waive them. The Fernald Citizens Task Force recommends that the Fernald site be the prototype for streamlining these requirements and placing remediation first.

Budgeting for the Long Haul. Fernald holds a unique position among DOE's major remediation sites: its decision making is nearly complete, needed technologies are in place, and its size is manageable. With the above reforms, a relatively modest up-front investment will yield a nearly complete remediation in one-half to one-third of the time projected in current reduced-budget scenarios. Under current budget constraints, remediation is estimated to take 25 years at a total escalated cost of \$5.7 billion. Without constraints, the same remediation could be conducted in seven years at a total escalated cost of \$2.7 billion. In addition to saving billions of dollars, the symbolic significance of getting a major facility "off the books" is incalculable. Our understanding of the options available to DOE in budgeting the Fernald project boil down to two basic choices: the potential for a big win by completing remediation in the seven year time-frame or a project constrained by annual funding caps that eventually costs twice as much and lasts three times as long. Dollar for dollar, there must be few opportunities in the DOE complex that offer a clearer choice or more attractive dividends.

There exists at this time at Fernald a window of opportunity to efficiently select and implement an accelerated remediation. DOE, its regulators, and its stakeholders must work together, with flexibility on all sides, to make these changes happen. It is time that DOE changed its legacy from a slow moving and expensive dinosaur, to a model of government/contractor efficiency. Given the tools and the reforms, Fernald can lead the way.

Key Issues Evaluated

Originally, site priority recommendations were envisioned as a sequencing of specific remedial activities according to their importance to the concerns and goals of stakeholders. However, as dramatic cuts in the DOE budget began to occur, the nature of the problem shifted. Suddenly, the Task Force was faced with remediation time frames stretching out to 25 years at total costs of twice what was expected, in order to work within projected annual budgets. The most important aspect of cleanup for the Task Force were to remove the highest level contaminants from the site as quickly as possible and to conduct remediation as cost-effectively as possible. That combination left the most rapid cleanups as the only viable alternatives. As

remediation schedules and logistics were evaluated for the accelerated remediation, it became clear that little opportunity existed to release some portions of land more rapidly than others, or to cost-effectively complete demolition of the production area before other activities. Therefore the focus of prioritization became how to obtain funds necessary to conduct remediation as quickly as possible in as cost-efficient manner possible.

Recommendations on Future Use

Summary

The Fernald Citizens Task Force focused its future use recommendations on creating a broad understanding of how the Fernald site could best be used following remediation rather than to identify specific detailed ideas for future use of the property. The Task Force recommended that residential and agricultural uses be avoided on the property. However, it was also important to the Task Force that the land be used productively. For this reason, the cleanup levels recommended for the site provide for all uses other than residential or agricultural. The Task Force also recommended that a sufficient buffer be provided between the on-site disposal cell and any other uses of the property. Ultimately, the Task Force recommended that specific uses of the property would be best determined closer to the time of reuse and by the people most impacted by that use within the guidelines set forth.

Detailed Recommendations

In evaluating future uses for the Fernald property, it was not the intention of the Fernald Citizens Task Force to identify specific uses of the land in the sense of planning or zoning. We believe that those decisions are best left to the persons who would ordinarily make such decisions: local planning and zoning officials and the people of the townships in which this property resides. In particular, residents adjacent to and immediately impacted by the future use of Fernald should be provided significant access to and participation in decision making regarding specific future use and ownership of the property. Moreover, these specific decisions will be better made closer to the time when actual use is being contemplated as actual reuse of any Fernald property is at least a decade away. It was the mission of the Task Force, however, to outline the overall plan for bringing Fernald back to productive and safe uses, and to identify the general categories of use that should not be provided for as a result of remediation.

Conceptually, The Task Force has divided the Fernald property into three zones: 1) the land containing the proposed on-site disposal cell and supporting facilities, 2) a transition zone surrounding the cell on all sides, and 3) all remaining property at Fernald. In support of this concept, the following recommendations have been developed:

- The on-site disposal facility (zone one) should be tied into the natural environment to the greatest extent possible consistent with public health and safety. This includes a natural vegetative cover of native plants, and gentle slopes keyed into natural contours of surrounding land. Extensive public input into facility design is anticipated to ensure that the visual impact of the facility on surrounding properties is minimal.
- It will be important to isolate the disposal facility from public access to protect the cover system of the disposal facility and not due to direct exposure risks to individuals in the area. The barriers to prevent access should be as unobtrusive as possible, while still providing clear markings and protection from intrusion. The Task Force prefers combining man-made barriers with natural barriers to soften the visual impact and to blend in with the total surroundings.
- To limit temptation for trespassing on the cell property and to provide for a natural transition in uses, the land immediately surrounding the cell and supporting facilities (zone two) should have limited use. Therefore, the Fernald Citizens Task Force recommends that a minimum of 300 feet in each direction of the cell property be reserved for limited use. These uses may include undeveloped green space and natural habitats, and public access should be clearly discouraged.
- The remainder of the Fernald property (zone three) should be made available for the uses most beneficial to surrounding communities, recognizing that a mixed use strategy may be the most beneficial. While encouraging uses that provide economic and social benefit to surrounding communities, the Fernald Citizens Task Force strongly recommends the prohibition of any sort of agricultural or residential uses, or any uses involving the importing of hazardous, radioactive, mixed, or solid waste for any reason or the generation of hazardous, radioactive, or mixed waste.
- DOE must refrain from making any commitments for potential future uses of property following remediation until community input has been registered.
- In planning for the future use of the Fernald property, sufficient space should be provided for the permanent relocation of any Native American burial sites exhumed in the vicinity of the Fernald property.
- All property containing the on site disposal cell (zone 1) and surrounding green space (zone 2) must remain under federal government control and ownership in perpetuity.
- The remaining property at Fernald (zone 3) must remain under federal government control and ownership until remediation is complete. Any changes of ownership, leasing, or control of property must be conducted after

consulting with local preferences for use and ownership, and with strict assurances that necessary monitoring of air, water, and soil will be conducted, maintenance of the disposal facility will take place, land use restrictions will be clearly enforced, and a program for prompt response to any future release of contamination is in place.

- The use of any Fernald property for other than remediation purposes prior to the completion of remediation should be carefully screened to ensure that such use does not present any additional health or safety concerns and that remediation progress is not hampered in any way.
- All future uses of the Fernald property must protect and enhance existing natural resources, with particular emphasis on the Great Miami Aquifer, Paddy's Run, and forested wetlands.

Key Issues Evaluated

Discussion of future uses of the Fernald property were the cornerstone upon which all of the Task Force recommendations were built. In the end, however, most members felt uncomfortable in providing too specific recommendations about how the land should be used. It was felt that this should be done closer to the time of actual reuse of the property which is at least a decade away, and with greater input from existing individuals and institutions with local responsibility for these activities. The Task Force was most concerned with the ability of area residents to maintain their homes and livelihoods in a safe and continuous manner with as little negative economic impact as possible. Having some benefit from the property following remediation was a strong theme in all discussions. Ultimately, the location of a disposal facility on site largely drove the makeup of the future use recommendations. Though it was recognized that the disposal facility posed no direct danger to human health through direct contact, it was felt that the perception of the facility was strong enough to warrant strict isolation from any surrounding uses. Ohio solid waste landfill siting requirements were evaluated in determining an appropriate buffer space. Most felt that the facility should be as inconspicuous as possible and that uses of the land should be as unobtrusive as possible. In the final analysis, the consensus values developed early in the process provide the best overall understanding of the guiding issues the Task force believes should be followed in contemplating future use of Fernald.

Impact Of Recommendations

While the Task Force has not yet received formal response from DOE with regard to the recommendations, the ongoing nature of input from the Task Force has resulted in dramatic changes to site decisionmaking and decisions. As a result of close coordination and ongoing sharing of ideas and information, the Task Force recommendations and site Records of Decision have been very similar. Because the

Task Force and operable unit five (soil and groundwater) decision making was going on simultaneously, many of the concepts and recommendations of the Task Force were incorporated into DOE's process. The cleanup levels presented in the Operable Unit Five Proposed Plan are sufficiently similar to those recommended by the Task Force to allow the same future use scenarios. The Task Force and the public at large were able to reverse a proposed decision to cap Operable Unit Two materials in place. Our recommendations to accelerate cleanup helped to bring that alternative to national level debate, and may yet be successful.

Respectfully submitted by the Fernald Citizens Task Force:

John S. Applegate, Chair

Darryl Huff

James Bierer

Jerry Monahan

Marvin Clawson

Tom Rentschler

Lisa Crawford

Robert Tabor

Pam Dunn

Warren E. Strunk

Dr. Constance Fox

Thomas Wagner

Guy Guckenberger

Dr. Gene Willeke

July, 1995

VI. NEXT STEPS

NOTE: This section has been included for Task Force review. The original outline ended with the previous section. The decision whether this or a similar section should be included in the final report is to be made at the June meeting.

Though the mission of the Task Force is complete with the formal presentation of its recommendations, the actual implementation of many of these recommendations will not be realized until the remedial design stage and beyond. Some ongoing function of the Task Force is contemplated to monitor the implementation of Task Force recommendations in both the design and construction phases and perhaps the long-term monitoring of the facility. The Task Force will reconvene in the fall of 1995 to evaluate options for conducting these functions.

What to do next presents an interesting challenge for the Task Force. From its inception, the Task Force has had a dual mission. Its charter identifies specific subjects for its consideration, and the Task Force followed those instructions closely, regularly avoiding opportunities to be side-tracked by other, more immediate issues. This, of course, is precisely the role implied by the term "task force." On the other hand, the charter provides for staggered terms and reappointment, and dissolution by action of the membership, suggesting the need for a longer term existence. Having completed its original mission by delivering the recommendations summarized above, the question arises what should the Task Force do next. Paramount in this evaluation is whether the Task Force should continue to exist or not.

Dissolution of the Task Force at this time is an attractive possibility for a number of reasons. First, it is consistent with the task-oriented approach we have taken: once the task is over, the group dissolves. Second, it avoids institutionalization of the group. The Task Force was careful to conduct substantial community outreach to avoid the kind of isolation that typically occurs with a group that has formed internal cohesion, works closely with governmental agencies, and develops a greater degree of knowledge than the average observer of the site. While we were largely successful through the outreach efforts to avoid this isolation, the threat remains and is likely to increase over time. Third, member burn-out must be considered. The time required of members for this effort cannot be overstated. The high degree of faithful attendance at (often inconvenient) meetings was truly astonishing, and can at least be partially attributed to the task orientation of the effort. A focused goal and process were essential to maintaining this degree of interest, and the idea of being finished at some definite point in the future is part and parcel of such a task orientation.

The above arguments notwithstanding, the dissolution of the Task Force at this time would not serve the best interests of the DOE or the community. DOE has a continuing need for organized, informed citizen input. The remediation process is a long-term enterprise (10-20 years), and it is certain that conditions will change as it proceeds. The Task Force's recommendations are not self-executing, so a continuing presence for monitoring, clarifying, and (if necessary) revisiting recommendations would be useful. Important and far-reaching decisions in the CERCLA remediation process do not end with records of decision. Detailed design plans have still to be developed, and they involve many potentially controversial choices. (For example, a major local concern about the disposal facility recommended by the Task Force is its stigmatizing impact on local property values; a well crafted design that takes such concerns into account can alleviate much of that effect by making the facility as unobtrusive and aesthetically pleasing as possible.) Indeed, difficult choices are often faced far down in the remediation itself as unexpected field conditions could result in the need for changes to established designs. Furthermore, legal requirements have changed during the Task Force's own deliberations, and more changes can be expected. Where DOE and its regulators must exercise discretion, informed public input would be helpful. And finally, the vagaries of the budget process are likely to call for decisions on priorities throughout the remediation period.

There are also other issues altogether waiting in the wings. Focused as the Task Force was on specific issues, others were necessarily—and, in our view, wisely—put off for another day or another group. The best example of that is detailed land use planning and associated economic development. The kind of future use exercise undertaken by the Task Force is a generalized one—basically, setting boundaries on possible uses rather than making specific recommendations for use—and targeted at present-day regulatory choices rather than long-term community development needs. The Task Force believes that specific land-use recommendations for Fernald are best made closer to the time when the property is available for non-DOE use, and by persons intimately concerned with local and regional economic development, land-use planning, and zoning. The Task Force could move into such a role, though with some revision of its current membership which is not well suited to detailed land use planning and economic development tasks. There would be clear advantages in using an existing, smoothly running advisory operation instead of creating new ones for new issues.

Given that the arguments to maintain the Task force are persuasive, the most sensible option is to retain the Task Force in essentially its present form—a small group representing a broad range of stakeholders—but meeting less frequently. This arrangement would take advantage of the administrative and information-gathering infrastructure that has been painstakingly created for the Task Force, as well as the high degree of recognition that the Task Force has built up in the community, as documented in public awareness surveys. Such an arrangement would also guard against the haphazard revisiting of the original recommendations

by an entirely different group of citizens. Willingness to serve on intensive advisory boards like the Task Force will be diminished if their conclusions are casually superseded by others.

The primary challenge of continuing the Task Force will be to create and maintain focus over a more diffuse set of issues than faced under the initial charter. Without focus and intensive development of specific issues, the group's recommendations will not have the weight that the original recommendations did. It may also stray into micromanagement of random issues, which likewise will detract from the group's authority. Focus could best be created by organizing around a series of short-term, intensive evaluations over the long-term cleanup operations. Timing of activities would have to be coordinated carefully with significant anticipated decisions, and ways must be found to keep the Task Force apprised of current and developing issues at the site. A system of regular communication with DOE and continuity of Task Force staff will be keys to success.

The difficulties of maintaining an effective Task Force over the long term are significant, but in our view this continuity is essential. It is important that we build on the success and credibility of the original mission by ensuring the effective implementation of the concepts and spirit embodied by the Task Force recommendations. Focus, teamwork, knowledge, and self-discipline—all of which are important ingredients of the Fernald Citizens Task Force's success—are difficult to replicate. The continuation of the Task Force is the most effective approach to ensuring balanced representation of local citizenry in decisions that will impact lives and livelihoods at Fernald for many generations.

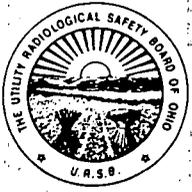
Schedule for the Final Report

- June 10, 1995* Review the first review draft of the final report.
- June 23, 1995* Second draft and all appendices for John Applegate's review.
- June 29-30, 1995* Sarno in Cincinnati to complete final draft.
- June 30, 1995* Mail draft final report to the Task Force members.
- July 8, 1995* Review the draft final report at the Task Force meeting.
- July 10, 1995* Sarno in Cincinnati this week to complete report.
- July 14, 1995* Send the final report to the printer.
- July 21, 1995* Final report due back from the printer.
- July 26, 1995* John Applegate in Washington D.C. to present final report to Assistant Secretary Thomas Grumbly, Cindy Kelley, and Jim Owendoff. *(Ken Morgan to organize)*
- July 28, 1995* The mass mailing of the Final Report of the Fernald Citizens Task Force to be mailed out.
- July 31, 1995* Report release event with John Applegate and the entire Fernald Citizens Task Force.

At least one member of the Task Force has expressed concerns that the Task Force began and concluded its work with no objective evidence of health risks having been proffered. At least one member believes that the risks, as presented to the Task Force, were couched in words and terms which, by their use, implied a deadly consequence, yet the scientific origins of the Maximum Contamination Levels for various nuclear and non-nuclear exposures were never established.

EPA proposed guidelines, EPA Maximum Contamination Levels, and other measures supplied to the Task Force, are rooted, other sources suggest, not in objective, empirical human long-term disease analysis, but in arbitrary extrapolation of decades-old massive-dose tests on ~~XXXXXX~~ laboratory critters.

All Task Force members accept that certain radionuclides can cause disease, but at least one member is uncertain which ones, what kind of exposure, and how much exposure to humans is really acceptable, and therefore at least one Task Force member wonders if the true risk is much lower than the Task Force's presumptions and hence whether the cost of the remediation is grossly excessive.



6986

The Utility Radiological Safety Board of Ohio

May 31, 1995

Mr. John Applegate
Fernald Citizens Task Force
Box 544
Ross, OH 45061

Dear Mr. Applegate:

This letter is to inform you that the Utility Radiological Safety Board of Ohio (URSB) is now accepting letters of interest from volunteers interested in serving on the URSB Citizens Advisory Council (CAC) on Nuclear Power Safety.

The URSB is comprised of the Directors of the Ohio Departments of Agriculture, Health, and Industrial Relations, the Ohio Emergency Management and Environmental Protection Agencies, and the Chairman of The Public Utilities Commission of Ohio. The URSB was established by the Ohio Legislature to coordinate the activities of its member agencies responsible for monitoring the safety of nuclear power plants.

The CAC is comprised of one environmental group representative, citizens, local government officials, engineers, scientists, and industry representatives. The purpose of the CAC is to advise the URSB on measures and factors affecting the safety of the nuclear power plants. The CAC also provides a forum to bring constituent matters of nuclear power interests to the State's attention.

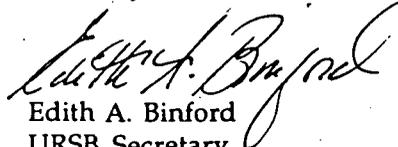
The URSB is specifically seeking a representative from an environmental organization who is familiar with radiation safety, to serve on the CAC for a two year term. Additionally, the URSB is seeking a local elected official from the Perry Nuclear Plant emergency planning Zone; a citizen at large, knowledgeable in nuclear power issues; and a health commissioner from one of three nuclear plant emergency planning zones.

If you or a member of your organization are interested in applying, please send a one page statement summarizing your background and interests in nuclear power safety to my attention at the address printed below. Letters of interest must be received by June 16, 1995.

Please be advised that service on the CAC is voluntary and that statutory provisions only allow for the reimbursement of travel expenses incurred by members conducting CAC activities. However, the URSB attempts to accommodate the CAC by holding meetings central to the majority of the members.

Thank you for your consideration. We trust that you or a member of your organization will be interested in serving on the URSB Citizens Advisory Council. I may be reached at (614) 466-4821 if you have any questions.

Sincerely,


Edith A. Binford
URSB Secretary

EAB:jc

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[199] From: Susan Walpole at FESP-02-A 6/9/95 7:35AM (2638 bytes: 58 ln)
 To: Judy Armstrong at FEAS-01-ASI-A, Rachel Clark, Amy Engler, Jeannie Foster,
 Kathy Graham, Jack Hoopes, Chuck Hundertmark, Nancy Huser, James Jackson at
 FEST-03-A, Pete Kelley, Julie Loerch, Paul Mohr at FEST-01-A,
 Perry Richardson, Sarah Snyder, Jan Tyler, Susan Walpole, Sherry Webb
 Subject: Helicopter

----- Message Contents -----

PA IS PARTIALLY SUPPORTING THIS EFFORT. LOOK AT THE LIST TO SEE
 IF ANYONE CAN SUGGEST OTHER SHOTS. PASS THAT SUGGESTIONS ON
 TO ME. THANKS.

SUE

The helicopter aerials purchase order has been issued and we
 are planning to shoot the photos and video on Thursday, June
 15th. If the weather does not cooperate, we will try again on
 Friday, June 16th.

The following is the feedback I have gotten from each of the
 CRU's and PA to date. If you find that we have not listed an
 area that you feel we should cover, please call me at 648-4893
 or page me at 920-7919.

Areas to be documented:

- 1) Former Plant 7 area
- 2) Former Plant 1 Silos area
- 3) Vitrification Pilot Plant
- 4) Advanced Waste Water Treatment Facility
- 5) Former Fire Training Facility
- 6) Parking lot behind Building 45
- 7) Third Street Dirt Pile
- 8) Plant 1 Pad Area
- 9) Plant 4
- 10) Plant 9
- 11) Plant 5
- 12) Boiler Plant/Water Treatment Facility
- 13) Lab Roof Project
- 14) Services Building Roof Project
- 15) Waste Pit Area (all angles)
- 16) Proposed Area for Waste Disposal Cell
- 17) New Trailer Complex in Waste Pit Area
- 18) Silos 1-4 (all angles)
- 19) Data Logging Trailers West of Silo 3
- 20) Bags & Equipment North of Data Logging Trailer
- 21) Radon Treatment Building
- 22) Entrance to Decant Sump Tank
- 23) Quonset Hut #3
- 24) Various Wide Angles of Site (all directions)
- 25) Public Water Supply Route (in reference to the site and the
 archeological digs)
- 26) South Field Area including Storm Water Retention Basins
- 27) Proposed area for Reburial of Indian Remains
- 28) View of site showing the proximity of our neighbors
 (Trailer park on 128, Knollman Farm, homes on North & West
 sides of the facility)

Thanks to everyone for their continued support and cooperation
 on this project. If you have any questions, please call me at

000049

NATURAL RESOURCE BRIEFING

FEMP

REGULATORY-DRIVEN MITIGATION

- Commitments to mitigate impacts have been made in operable unit ROD's
- Wetlands — Clean Water Act §§404 & 401
 - Implemented through ACOE Regulations 40 CFR §230 and 33 CFR §320
- Cultural Resources — National Historic Preservation Act §106
- Threatened & Endangered Species — Endangered Species Act
- Other Habitats — NEPA requirements
 - Paddys Run Corridor and Northern Woodlot

NATURAL RESOURCE BRIEFING

6986

FEMP

PRIORITY NATURAL RESOURCES AT THE FEMP

- 36 acres of wetlands on-property
 - 10 acres of wetlands are expected to be impacted during remedial action
- FEMP is eligible for National Register of Historic Places
 - Mitigate impacts to numerous on-property archaeological sites
 - Will need to address final disposition of human remains
- State-threatened Sloan's crayfish and excellent habitat for federally-endangered Indiana bat occur in Paddys Run
 - Impacts to Paddys Run will require mitigation (e.g., relocation of crayfish, enhancement of Indiana bat habitat)

NATURAL RESOURCE BRIEFING

6986

FEMP

WETLAND MITIGATION

- On-site preference for mitigation within Northern Woodlot and Paddys Run Corridor
 - Studies to determine feasibility of on-property mitigation will be conducted this summer
 - Meeting with regulators to discuss where, how much, and when is set for June 20, 1995
- Mitigation will require permanent commitment of site in these regions

000052

NATURAL RESOURCE BRIEFING



FEMP

NATURAL RESOURCE TRUSTEE COMPENSATION

- CERCLA §107 & NCP require DOE, DOI, and the State of Ohio to act as trustees for the site's natural resources on behalf of the public
- DOE, as the responsible party, also has responsibility for impacted natural resources at the site
- DOE may need to go above and beyond the previously-listed regulatory requirements to compensate for impacts to natural resources
- Compensation can include restoration, replacement, and/or enhancement of natural resources

NATURAL RESOURCE BRIEFING

FEMP

COMPATIBILITY WITH FUTURE LAND USE

- FCTF final recommendation for future land use includes "protection and enhancement of existing natural resources"
- DOE and FERMC0 feel that natural resource mitigation and compensation activities are consistent with general future land use of the Site
- DOE is considering Northern Woodlot and Paddys Run Corridor as priority areas for Natural Resource Mitigation and Compensation

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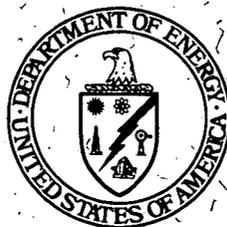


FERNALD

Environmental Management Project

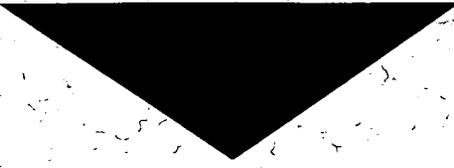
**FERNALD ENVIRONMENTAL
REMEDICATION PROGRESS
STATUS REPORT**

May 10, 1995



000055

Executive Summary



Fernald site poses health and environmental risks

The U.S. Department of Energy's Fernald Environmental Management Project, located on 1,050 acres about 18 miles northwest of Cincinnati, produced uranium metal products for use in the nation's nuclear weapons program between 1952 and 1989. During past production processes, significant levels of radiological and chemical contaminants were released into the air, water, and soil. There is a large residential population immediately adjacent to this relatively small site and the groundwater aquifer beneath the facility is the sole source of drinking water in the region. These factors exacerbate the potential for adverse impacts to human health and the environment.

DOE is poised to begin cleanup for entire site

Accordingly, the site was placed on the National Priorities List in 1989 and is now being remediated under a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Consent Agreement between the DOE and the U.S. Environmental Protection Agency (EPA). As discussed below, the DOE is now poised to begin and, in some cases, continue cleanup (actual work in the field) for the entire Fernald site.

Study phase of project essentially complete

In very broad terms, the process of remediating sites under CERCLA consists of three general phases. First is site characterization. This phase determines what contaminants are present and at what levels, where they are located and to where they are migrating. Site characterization also evaluates the potential impacts of those contaminants on human health and the environment. The second phase is remedy selection. This phase develops and evaluates different cleanup alternatives and, with appropriate public involvement, selects a remedy. These two phases are commonly referred to as the "study" portions of the process. The final phase is actual site cleanup.

The study phases of the process at Fernald are essentially complete for the entire site and actual site cleanup has started. The selected cleanup options primarily use technologies and process options that have been successfully implemented at CERCLA sites throughout the country. For the one innovative technology selected, extensive testing at Fernald has proven its applicability to the site. Accordingly, there do not appear to be any significant technical issues that

*Final or proposed
cleanup strategies
identified for entire site*

would prevent timely implementation of the selected and proposed remedies at the site. The most significant constraint is related to the extent to which the cleanup efforts are funded.

*Stakeholders actively
involved in decision-
making process*

Initial characterization of the entire Fernald site began in 1986 under a Federal Facilities Compliance Agreement. In 1991, under CERCLA, a segmented Remedial Investigation and Feasibility Study began, which completes site characterization and supports remedy selection for all five study areas targeted for remediation; this process is substantially complete. There are signed or approved Records of Decision, which document remedy selection, for four of the five operable units, with the fifth Record of Decision expected to be approved before the end of fiscal year 1995. For this operable unit (Operable Unit 5), a proposed remedy has been identified by the DOE and approved by the U.S. and Ohio Environmental Protection Agencies. Fernald has begun implementation of its cleanup remedies; indeed, construction has begun on a vitrification pilot plant, which will turn radioactive sludges into a glass-like form. CERCLA requires that remedial action begin within 15 months of the date the Records of Decision are signed, so actual cleanup activities will be underway for the entire site in a matter of months. In addition, 30 short-term removal actions have been completed or are now in progress at Fernald. These actions are designed to eliminate or control contamination sources prior to final cleanup.

*Work progressing in
cooperation with
regulators*

Stakeholders at the Fernald site have been engaged and are actively participating in discussions and decisions about remediation. Two groups in particular — Fernald Residents for Environmental Safety and Health (FRESH) and the Fernald Citizens Task Force — have been active participants in Fernald cleanup. FRESH has been instrumental in focusing Congressional attention on Fernald. The Task Force, which was formed by the DOE in 1993 to develop public consensus on cleanup and future courses of action at the site, has delivered a series of recommendations on future use of the site, cleanup objectives, waste disposal, and cleanup priorities. All of the selected and proposed remedies are consistent with the existing recommendations of the Task Force. The Task Force membership includes local residents,

local-elected officials, local labor representatives, representatives of FRESH, the DOE, the EPA, and the Ohio Environmental Protection Agency (OEPA).

The work at Fernald is proceeding under an Amended Consent Agreement between the DOE and EPA with the OEPA as an active participant in the process. In addition, OEPA has other certain regulatory authorities at the site.

Regulators and stakeholders calling for accelerated cleanup

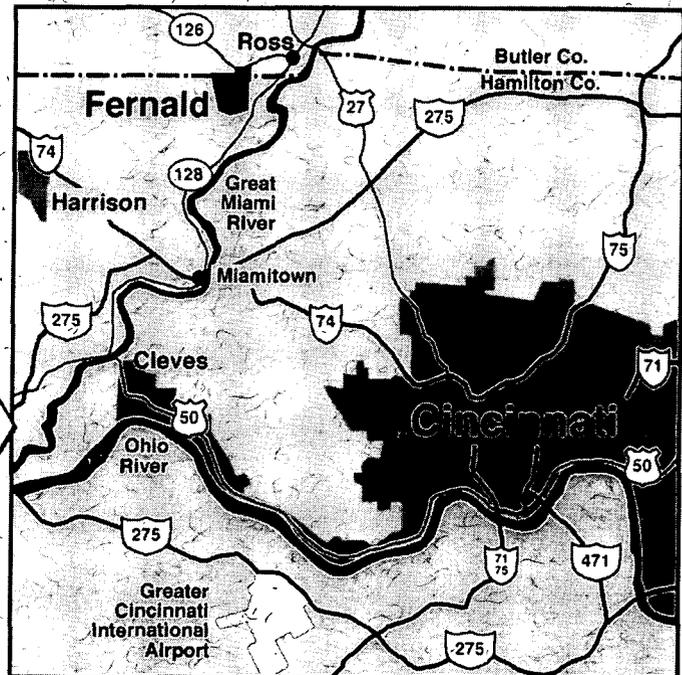
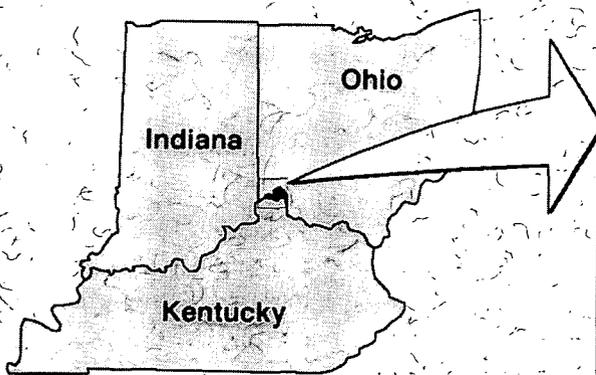
All selected remedies have been approved by the EPA with the concurrence of the OEPA. The DOE is working actively and cooperatively with both regulatory agencies to facilitate cleanup work at Fernald.

Under current target budget constraints, remediation is estimated to take 25 years at a total escalated cost of \$5.7 billion. Without constraints, the same remediation could be conducted in 10 years at a total escalated cost of \$2.7 billion. This 10-year time frame is generally consistent with that envisioned in the Records of Decision. The Task Force recently forwarded a recommendation to the DOE calling for accelerated remediation, citing the associated cost savings and more timely reduction of risk at Fernald. In addition, both EPA and OEPA are maintaining the position that the DOE is legally obligated to complete remediation consistent with the time frames set forth in the Records of Decision.

Background

Construction of the Fernald facility began in 1951, with full production starting in 1952. The Fernald facility was originally built by the Atomic Energy Commission, which became the Energy Research and Development Administration, and the DOE. The facility produced uranium products including derbies, ingots, billets, fuel cores, and targets for DOE sites in Rocky Flats, Col.; Savannah River, S.C.; Oak Ridge, Tenn., and Hanford, Wash. Much of the Fernald product provided "feed materials" used in DOE production reactors to make plutonium and tritium. Uranium metal production was suspended in July 1989, and the DOE focused its resources on environmental restoration of the Fernald site.

Since 1952, various radionuclides and chemicals have been discharged to the air, soil, and water, both on and off the Fernald facility. The radionuclides include those in the uranium and thorium chains, as well as trace quantities of some long-lived fission products and transuranics. As a result of these releases — and the threat of future releases, including radioactive materials — EPA determined the Fernald site presented an imminent danger to public health and environment.



Map of Fernald and vicinity

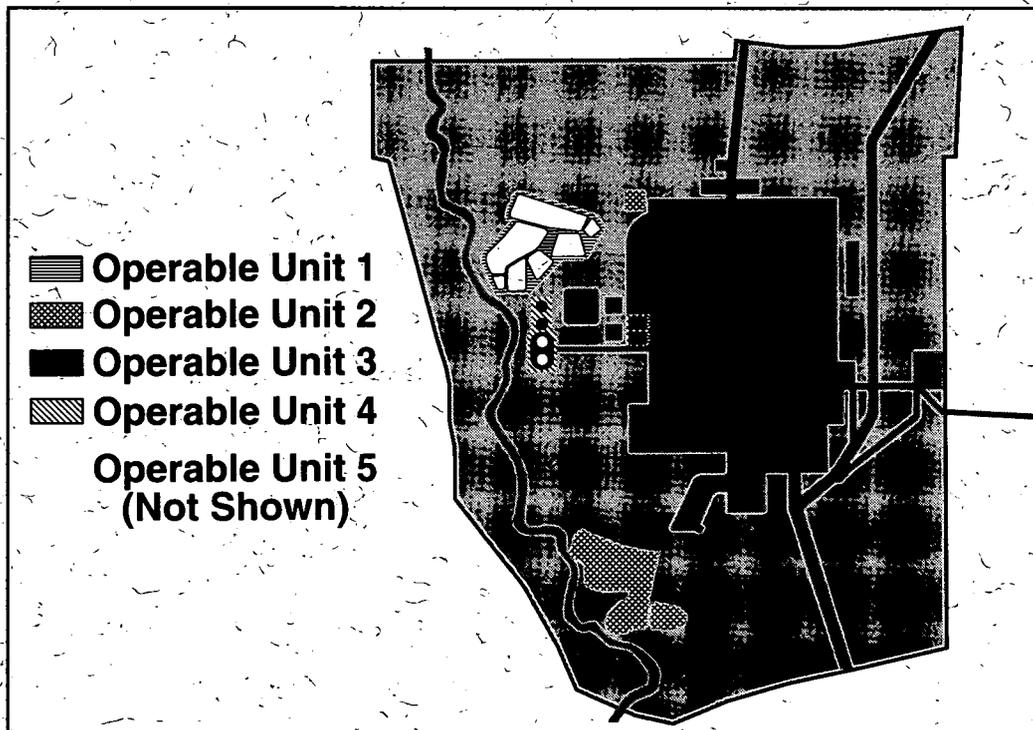
In December 1989, the Fernald site was added to the National Priorities List, which is the list of Superfund sites most in need of cleanup. Production ceased in 1989, and in February 1991, the DOE announced its intention to formally end the production mission at Fernald. Closure of the facility became effective in June 1991.

To address the releases and threats of releases of hazardous substances from containers and facilities at Fernald, the DOE and the EPA entered into a CERCLA Consent Agreement in 1990; that agreement was amended in 1991. In addition to initiating a Remedial Investigation and Feasibility Study (RI/FS), the Amended Consent Agreement sets forth specific, legally-binding milestones by which progress is measured. The Remedial Investigation and Feasibility Study stages, whose purpose is to determine the extent and nature of the contamination and to identify appropriate cleanup remedies, are essentially complete. Of the five discrete study

areas, or operable units, created in the Consent Agreement, four have approved or signed Records of Decision, which are the legal agreements specifying how cleanup will proceed at Fernald. The EPA has approved the Records of Decision with the written concurrence of OEPA.

A brief description of the operable units at Fernald follows:

- **Operable Unit 1** includes six waste pits, a Burn Pit, and Clearwell
- **Operable Unit 2** includes a solid waste landfill, lime sludge ponds, inactive flyash pile, active flyash pile, and the South Field area
- **Operable Unit 3** includes all processing facilities located in the 136-acre former production area
- **Operable Unit 4** includes "K-65" Silos 1 and 2, which contain radium-bearing wastes; Silo 3, which contains dried uranium-bearing wastes, and Silo 4, which is empty
- **Operable Unit 5** encompasses the environmental media on the Fernald property and surrounding areas impacted by the facility. Environmental media include groundwater, surface water, soils, sediments, vegetation, and wildlife



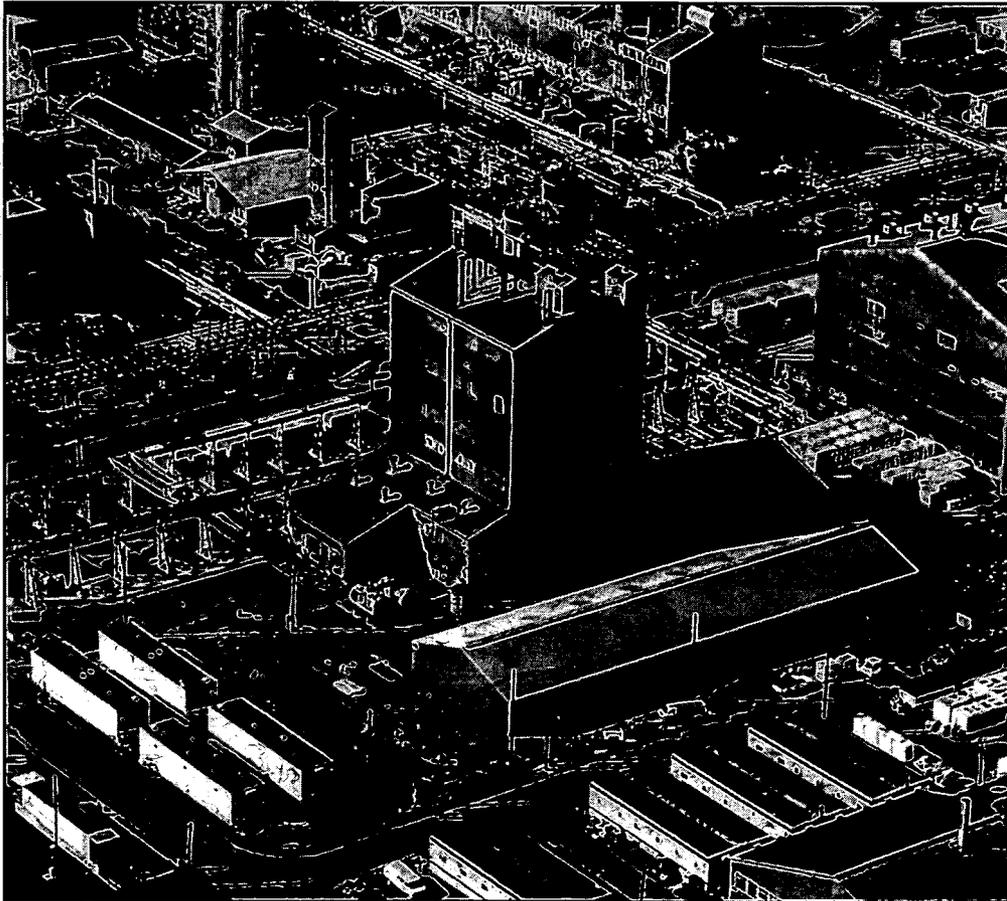
Aerial graphic showing Fernald study areas known as "operable units" which are targeted for remediation

Progress in Cleanup Efforts

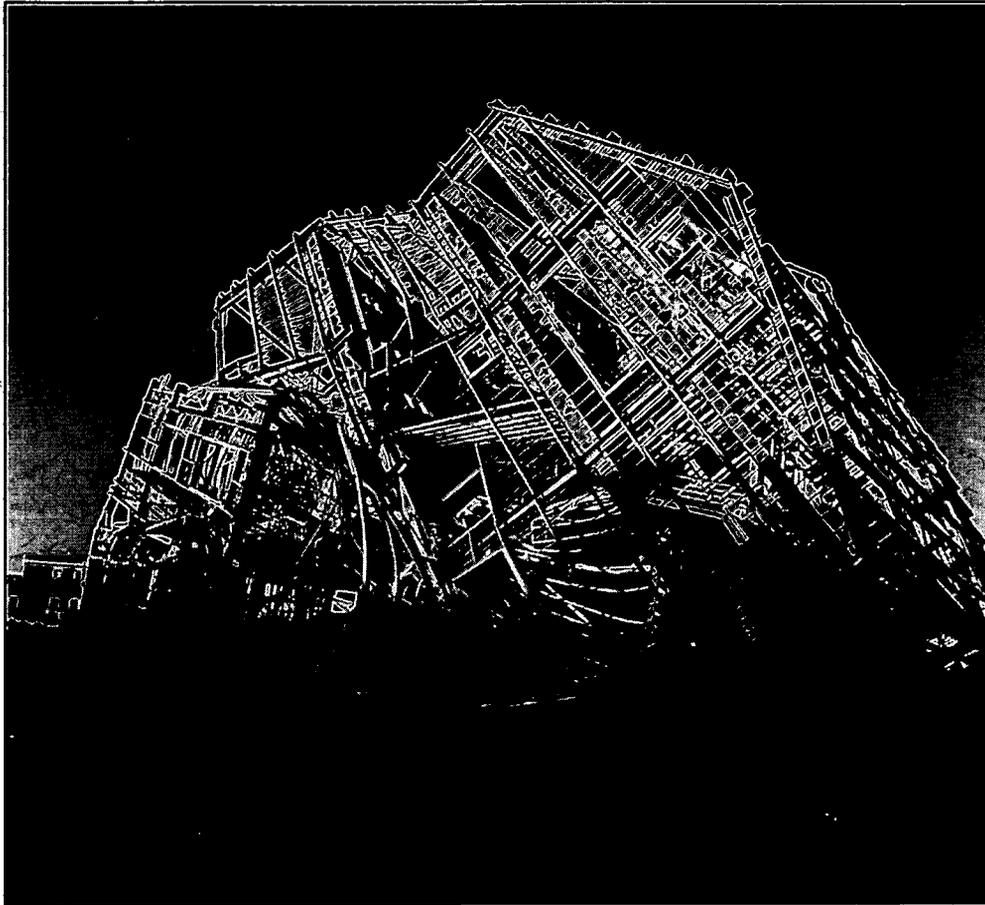
As stated earlier, characterization and the remedy selection process for the entire site are essentially complete.

The site characterization process documented significant concentrations of radiological and chemical contaminants in the soil, groundwater and surface water on and around the Fernald facility. This process also concluded that in the absence of remedial action, these contaminants represented a potentially unacceptable risk to human health and the environment. Several factors exacerbate this risk. First is the proximity of residents, who live immediately adjacent to this relatively small facility. Second is the presence of a groundwater aquifer directly beneath the site, which is the principle source of drinking water in the region.

Also of note is the fact that the silos containing radioactive materials represent the highest single source concentration of radon, a known carcinogen, in the United States. The waste pits and other waste units channel contamination directly into the sole-source aquifer. Contamination from the Fernald facility has affected about 1.7 billion gallons of the region's drinking water; the DOE has had to provide bottled water for neighbors in the path of the contamination and has paid to extend public water supplies to the area.



Plant 7 as it appeared prior to dismantling activities



Plant 7 superstructure following successful implosion in September 1994

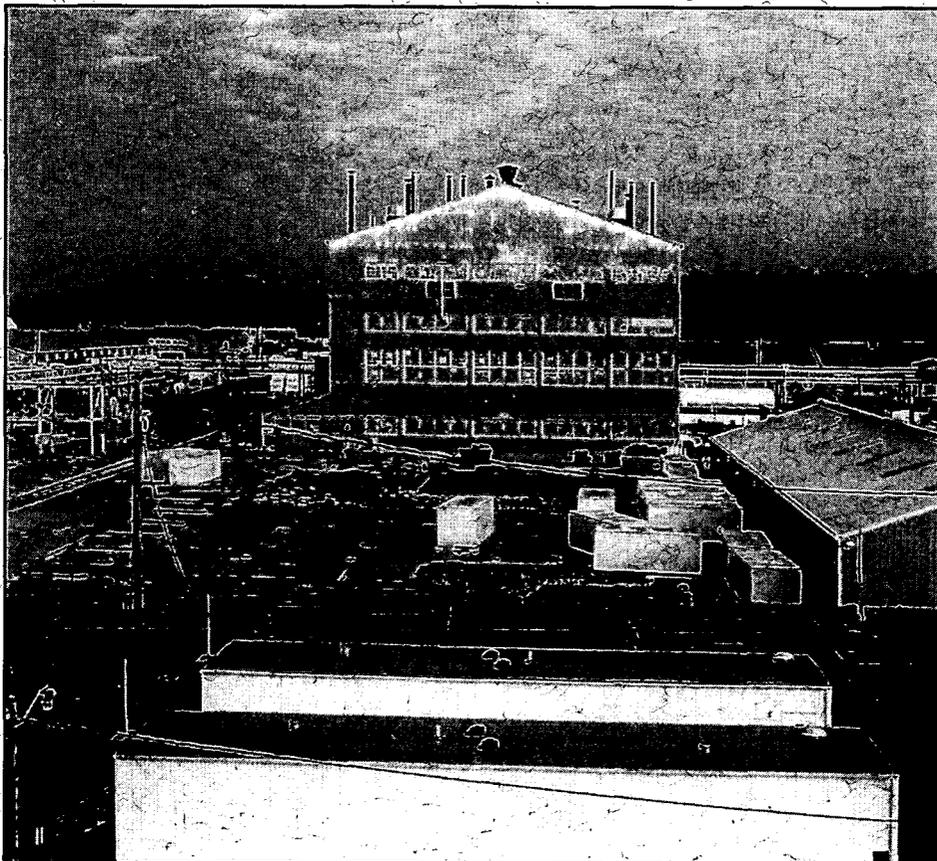
The status of the DOE's remedy selection to address these threats, by operable unit, is:

- **Operable Unit 1** — Record of Decision signed March 1995. The remedy is excavation of the waste pit contents, processing and treatment of the waste by thermal drying, and off-site disposal at a permitted commercial disposal facility.
- **Operable Unit 2** — Record of Decision conditionally approved May 1995. The remedy is excavation and on-site disposal of the waste materials in an engineered facility.
- **Operable Unit 3** — Record of Decision for Interim Remedial Action signed July 1994. The remedy is decontaminating and dismantling buildings and support facilities in advance of the final Record of Decision; ultimate disposition of the wastes will be determined in the final Record of Decision.

-
- **Operable Unit 4** — Record of Decision signed December 1994. The remedy is to remove and vitrify the contents of the three silos and the decant sump tank, then ship the vitrified waste for disposal at the Nevada Test Site.
 - **Operable Unit 5** — Proposed remedy is excavation of contaminated soil and sediment and on-site disposal in an engineered facility; extraction and treatment of the Great Miami Aquifer and perched groundwater containing concentrations of contaminants above established or proposed maximum concentration levels. This proposed remedy has been approved by the EPA with the concurrence of OEPA. Formal public comment on the proposed remedy is now being accepted.

All the approved and proposed remedies utilize proven technologies that have been successfully applied at other CERCLA sites.

In addition, 30 short-term removal actions have been completed or are now in progress at Fernald. These actions are designed to eliminate or control contamination sources prior to final cleanup.



Area in foreground is where Plant 7 once stood; building in background is Plant 4, which has been cleaned out and is now ready for dismantling

Stakeholder Involvement

The DOE has pursued aggressive public involvement with stakeholders at the Fernald site. The chronology of community involvement, detailed in the site's Community Relations Plan, demonstrates how increased stakeholder awareness prompted the DOE to move from the non-participatory "Decide, Announce, Defend" strategy to the two-way approach of shared decision making. In this approach, DOE and its stakeholders work together toward the common goal of cleaning up the site. In the beginning, the DOE held public meetings that simply provided forums for protest and accusations. Since then, the DOE has made an effort to move from one-way to two-way communication.

Stakeholder input is solicited through such mechanisms as regular briefings for FRESH and local township trustees, person-to-person communication through the Envoy Program, workshops designed solely to ask stakeholders their concerns, informational sessions, and dissemination of fact sheets and other literature. In May 1994, a comprehensive community assessment, in which a total of 415 stakeholders were interviewed in person or by telephone, revealed four key concerns:

- Providing truthful information about the site and site activities
- Involving stakeholders in the decision-making process
- Site impacts to public health, safety, and the environment
- Desire for site cleanup without wasting taxpayers' money

Recognizing the importance of public involvement in the decision making during Fernald remediation, the DOE established in August 1993 the Fernald Citizens Task Force, a site-specific advisory convened to provide recommendations on four specific questions:

- What should be the future use of the Fernald site?
- Where should waste materials be disposed?
- What should be the cleanup levels?
- What should be the cleanup priorities?

Task Force membership includes local residents, local elected officials, representatives of FRESH, the DOE, the EPA, and the Ohio Environmental Protection Agency (OEPA).

The Task Force has delivered a series of recommendations on future use of the site, cleanup objectives, waste disposal, and cleanup priorities. All of the DOE's selected and proposed cleanup remedies are consistent with the existing recommendations of the Task Force. In particular, the Task Force has recommended:

- That past impacts of the Fernald site on the Great Miami Aquifer must be remediated and any future impacts controlled so that groundwater quality meets the standards of the Safe Drinking Water Act.

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- That the excess risk of contacting cancer posed by exposure to Fernald contamination under any use of land on and off the Fernald property shall never exceed one in 10,000. This recommendation is intended to establish a maximum level of allowable risk, not a target; recommendations of the Task Force regarding aquifer protection and hazard index must also be considered and the most stringent cleanup levels applied. Additionally, the Task Force recommends limiting land use even in cases where the concentrations achieved in the soil would allow for less restrictive uses, to provide for an additional margin of safety.
 - That all contaminated soils and other waste sources both on and off the Fernald property be reduced to levels that will provide safety from non-cancer toxicological effects at a level equivalent to a hazard index of one.
 - That all contaminated soils and other waste sources both on and off the Fernald property must be reduced to levels that will prevent contaminants from reaching the aquifer at levels that would result in groundwater concentrations exceeding Safe Drinking Water Act levels.



Members of the Fernald Citizens Task Force playing FutureSite, a board game developed by Chair John Applegate that realistically depicts site cleanup issues including cost, potential risks and transportation concerns

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- That, for the purpose of evaluating risks, all off-property land is to be considered at the resident farmer scenario to provide for the most stringent cleanup levels.
 - Construction of an on-site disposal facility to accept, from the Fernald site only, materials solely with low levels of contamination meeting the site-specific waste acceptance criteria.

The Task Force also has recommended accelerating remediation at Fernald, citing Fernald's unique position among DOE's major remediation sites. "A relatively modest up-front investment will yield a nearly complete remediation in one-half to one-third of the time projected in current reduced-budget scenarios," according to the Task Force recommendation. The Task Force noted in its recommendation that, without funding constraints, remediation at Fernald could be conducted much more quickly and at a savings of about \$3 billion. "In addition to saving billions of dollars, the symbolic significance of getting a major facility 'off the books' is incalculable Dollar for dollar, there must be few opportunities in the DOE complex that offer a clearer choice or more attractive dividends."

In addition, the Task Force is currently evaluating potential recommendations concerning future uses and institutional controls on the Fernald site.

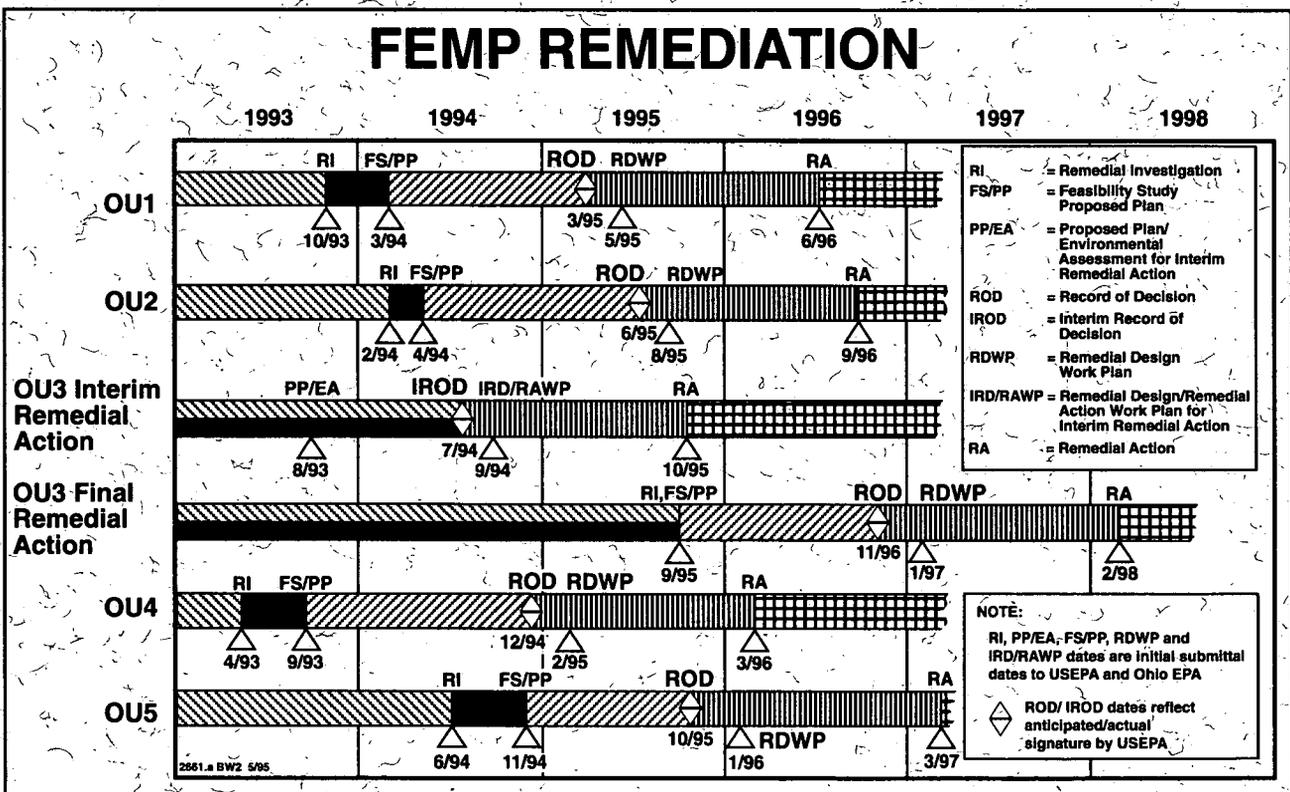
The public has been involved in decision making at Fernald and, as a result of the DOE's efforts, most stakeholders generally accept the cleanup plans for the site.

There is some disagreement among stakeholders about on-site disposal at Fernald. While the Fernald Citizens Task Force has recommended on-site disposal of less-contaminated materials as a balanced and reasonable course of action, some stakeholders have expressed worry about the appropriateness of on-site disposal. The DOE is committed to working with these stakeholders to discuss and address their concerns to the maximum degree possible.

Regulatory Issues

As discussed previously, all cleanup at Fernald is mandated by the Amended Consent Agreement, which specifies the schedule of activities the DOE must perform, and the dates by which they must be performed. The EPA has approved all documentation and decisions to date. OEPA, which has been actively participating, also has concurred with the documentation and decisions produced to date.

The time frame for remediation is set forth in the Records of Decision. Both EPA and OEPA are maintaining the position that the DOE is legally obligated to complete remediation consistent with the time frames set forth in the Records of Decision. Neither EPA nor OEPA have identified any significant technical issues that would prevent timely implementation of the selected and proposed remedies at the site. The regulators agree that the most significant constraint is related to the extent to which the cleanup efforts are funded.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 10 1995

REPLY TO THE ATTENTION OF:

Mr. Jack R. Craig
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

HRE-8J

RE: Fernald Environmental Remediation
Progress Status Report

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the draft Fernald Environmental Remediation Progress Status Report. This document accurately represents the current status and path forward for remediation efforts at the Fernald site. For several years U.S. EPA, the Ohio Environmental Protection Agency (OEPA), and the United States Department of Energy (U.S. DOE) have been working together to remediate contamination from past waste management and disposal activities at the Fernald site.

Cleanup has already started, as 30 short-term removal actions have been completed or are currently being implemented. Four of the five Records of Decision (ROD) have been approved by U.S. EPA, and the proposed remedy for the fifth Operable Unit (OU) has also been approved. Thus the actual study phase, contaminant characterization and remedy selection, is essentially complete.

The Fernald site is at a critical junction with the study phase ending and actual large-scale remediation beginning. The path forward is clear as recommendations for the site's future land use have been provided by the Fernald Citizens Task Force.

The remedies selected by U.S. DOE were reviewed by U.S. EPA, OEPA and the public. They are remedies which represent a balanced approach for handling the waste materials and contaminated media at the site, by disposing of the most contaminated materials off-site and disposing of the remaining materials on-site. The selected remedies utilize technologies that have been implemented at several Comprehensive Environmental Response, Compensation, and Liability Act sites across the country. Many of the remedies have even had smaller-scale studies conducted to assure their applicability with the Fernald materials.

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U.S. EPA believes it is important to discuss the timeframe over which remediation will be implemented. In signing the various RODs, U.S. DOE presented a timeframe in which the various actions would be conducted. This remediation timeframe is part of one of the nine selection criteria (implementability), which U.S. EPA uses to consider, review, and ultimately approve the remedies. These timeframes were also conveyed to the public during the comment period. U.S. EPA believes that according to the Amended Consent Agreement (ACA), the timeframes specified in the RODS must be followed.

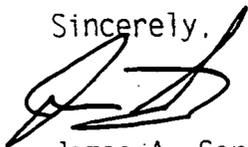
U.S. EPA, OEPA, U.S. DOE and the stakeholders have worked hard in completing the study phase of the cleanup process, and we are ready to move ahead. Current budget cuts severely threaten the future successes at the Fernald site. Clearly, given our position in the cleanup process, funding provided to the Fernald site will show direct results, as the remedies have been well researched and are supported.

Finally, the 10 year cleanup scenario, consistent with U.S. DOE's legal obligations in the ACA, estimates the total escalated costs for remediation at \$2.7 Billion. The 25 year cleanup scenario, based on U.S. DOE's target budget cuts, estimates the total escalated costs for remediation at \$ 5.7 Billion. The cost savings of \$3 Billion is not only fiscally responsible, but consistent with the desires of the stakeholders that have been directly involved with the Fernald site since the 1950's.

Therefore, U.S. EPA supports the 10 year cleanup scenario as one being both fiscally responsible and required under the ACA.

If you have any questions regarding the above matter, please contact me at (312) 886-0992.

Sincerely,



James A. Saric, Remedial Project Manager
Technical Enforcement Section #1
RCRA Enforcement Branch

cc: Tom Schneider, OEPA-SWDO
Jack Baublitz, U.S. DOE-HDQ
Don Ofte, FERMCO
Jim Theising, FERMCO
Terry Hagen, FERMCO

STREET ADDRESS:

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TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

May 12, 1995

Mr. Jack Craig
Director
U.S. DOE FEMP
P.O. Box 398705
Cincinnati, Ohio 45329-8705**Re: Fernald Environmental Remediation
Status Report**

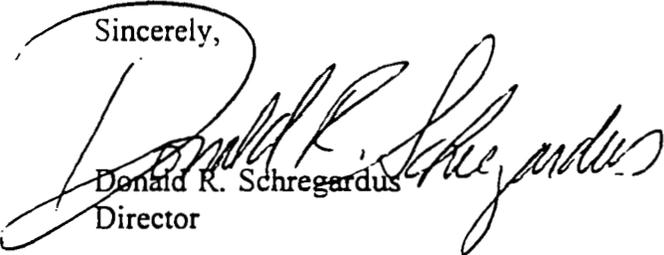
Dear Mr. Craig:

I am writing to relay Ohio EPA agreement with the information provided in the Fernald Environmental Remediation Progress Status Report. In particular, Ohio EPA strongly supports implementation of remediation in the 10 year time frame, discussed in the report, for a number of reasons. The 10 year approach will bring about concrete risk reduction and restoration of resources in the most fiscally responsible manner. As noted in the report, accelerated cleanup will save the taxpayer approximately \$3 billion. It also ensures continued compliance with current regulatory agreements and shows that DOE is committed to rewarding sites where stakeholders, regulators and site managers work together to establish reasonable and achievable future land use, cleanup goals and cost effective strategies to achieve the goals.

Stakeholder involvement has been a key to the success at Fernald to date. Efforts by DOE, USEPA, and Ohio EPA to involve stakeholders, such as FRESH and the Fernald Citizens Task Force, early and often in the remedial process have allowed difficult decisions to be made with a rare degree of consensus. The Fernald site is a leader for the DOE complex in stakeholder participation. All parties involved have shown real commitment to getting the cleanup done. Ohio EPA believes it is in everyone's best interest to reward this level of commitment through the provision of adequate funding to ensure timely remediation of the Fernald site.

As the study phase of the Fernald project ends, we are poised on a precipice. We may attain great success or fall to mediocrity. The path forward now depends largely upon appropriate funding and continued productivity improvements. Ohio EPA believes hard work lies ahead for all, but neither technical difficulty nor regulatory constraint will be the factor limiting success at Fernald. Ohio EPA encourages DOE to move forward with the 10 year remediation approach referenced in the Fernald Environmental Remediation Progress Status Report and looks forward to working hard with DOE and sharing great success at Fernald.

Sincerely,


Donald R. Schregardus
Director

DRS/bo

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FERNALD CITIZENS TASK FORCE

A U.S. DEPARTMENT OF ENERGY SITE-SPECIFIC ADVISORY BOARD

Chair:

John S. Applegate

Members:

James Bierer
Marvin Clawson
Lisa Crawford
Pam Dunn
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Thomas Wagner
Dr. Gene Willeke

Alternates:

Russ Beckner
Jackie Embry

Ex Officio:

J. Phillip Hamric
Graham Mitchell
Jim Saric

May 12, 1995

Mr. Jack Craig
Director
Fernald Area Office
U.S. Department of Energy
Mail Stop 45
P.O. Box 538705
Cincinnati, Ohio 45253

RE: The Fernald Environmental Remediation Progress Status Report

Dear Mr. Craig:

I am writing on behalf of the Fernald Citizens Task Force to express our agreement with the contents of the Fernald Environmental Management Project strategic planning document, "Fernald Environmental Remediation Progress Status Report," a draft of which was distributed at our regular meeting on May 6, 1995.

We believe that it accurately reflects the progress that has been made at Fernald and, more importantly, the opportunity that exists to essentially complete remediation of the entire site within an accelerated, but reasonable time frame. As we have previously stated in our recommendations to the Department of Energy, we strongly urge remediating Fernald as quickly as possible to achieve rapid protection of the aquifer and to realize substantial cost savings.

We fully understand the constraints on funding and the complexities of deciding on an accelerated schedule. Nevertheless, we believe that few other opportunities exist within the Environmental Management program that offer such good prospects for success on such a large scale.

Very truly yours,



John S. Applegate
Chair

JSA:rmt

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