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**AGENDA, OVERHEADS AND HANDOUTS FROM THE U.S. DOE COMMUNITY
MEETING HELD JUNE 14, 1994**

06/14/94

DOE-FN PUBLIC
60
HANDOUTS

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**DEPARTMENT OF ENERGY
PUBLIC MEETING**

G-060-1005, 68 June 14, 1994

The Plantation

6:00 - 7:00 p.m. Exhibit Display

7:00 p.m. Opening

Welcome / Introductory Remarks

Gary Stegner

Presentations:

**Cleanup Progress - Jack Craig
Waste Shipments - Ray Hansen
Strategic and Future Planning - Phil Hamric
Material Release - Ray Hansen**

7:30 - 8:30 Group Break-out Sessions

Strategic Planning and Future Use

**Phil Hamric, DOE Spokesperson
Jack Hoopes, Facilitator**

Released Material Disposition

**Ray Hansen, DOE Spokesperson
Ken Alkema, Facilitator**

Newcomers

Gary Stegner

(10 minute break)

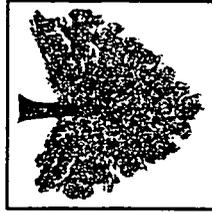
8:40 Agency Updates - FRESH Comments - Q&A

**U.S. EPA Comments
Ohio EPA Comments
Fernald Citizens Task Force
FRESH Comments**

**Jim Saric
Tom Schneider
John Applegate
Lisa Crawford**

QUESTION AND ANSWER SESSION

After the meeting, DOE/FERMCO staff will be available to talk with Stakeholders



Updates on Operable Units

Operable Unit 1:

- Submitted Draft Final RI to EPA on May 4, 1994
- Submitted FS/PP to EPA March 3 - received EPA comments June 1
- Public Comment Period scheduled for August/September timeframe

Operable Unit 2:

- Submitted Second RI Draft to EPA June 15
- Submitted FS/PP to EPA April 29 - awaiting comments
- Public Comment Period scheduled for October/November timeframe



Updates on Operable Units (Cont'd)

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Operable Unit 3:

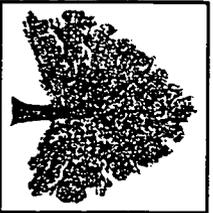
- IROD signed by DOE-HQ - sent to U.S. EPA
- 60 days after EPA signs IROD, DOE submits RD/RA Work Plan to EPA

Operable Unit 4:

- The Public Comment Period extended 60 days ends
June 19
- Draft ROD due to U.S. EPA August 9, 1994

Operable Unit 5:

- RI on schedule for submittal to EPA on June 24, 1994
- FS scheduled for submittal to EPA on November 16, 1994
- ROD scheduled for submittal to EPA on July 3, 1995



Operable Unit 3 IROD

- U.S. and Ohio EPA have given conditional approval for the OU3 Record of Decision for Interim Remedial Action (IROD)
- IROD approval allows Fernald to begin remediation activities in the former production area, realize a potential cost savings of up to \$300 million, and accelerate OU3 remediation by four years
- The IROD was signed by DOE and submitted to U.S. EPA and Ohio EPA on June 10, 1994
- DOE expects to submit the RD/RA Work Plan to EPA by mid September - 60 days after finalization of the IROD by EPA
- A community roundtable was held on June 2 to discuss Operable Unit 3's remedial design/remedial action process



Operable Unit 4 ROD Schedule

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- OU4 FS/PP-DEIS formal public comment period *originally* scheduled to end April 20, 1994
- Initial 30-day extension of formal public comment period to May 20, 1994
- On May 11, 1994, DOE and FERROCO officials met with Nevada CAB members, resulting in the second 30-day extension of formal public comment period to June 19, 1994
- Proposed draft Operable Unit 4 Record of Decision scheduled for submittal to U.S. EPA by August 9, 1994



Operable Unit 4 Pilot Plant

- Construction of earthwork, concrete, and pre-engineered building package initiated the week of June 6, 1994
- Facility output will be approximately one metric ton or 2200 lbs per day
- Facility will utilize two-phase operation:
 - Phase I is scheduled to be in operation from March 1995 to April 1995
 - Phase II is scheduled to be in operation from January 1996 to March 1996
- Percent of K-65 material to be removed for Pilot Plant runs is approximately 0.15% (10.38 cubic meters); Silo 3 0.27% (10.38 cubic meters)

- Remainder FY 1994 approximately 150,000 pounds
 - Thru May 1994 149,988 pounds to Manufacturing Science Corp.
- Materials / Product Shipped

- 1994 -- 480 DES to Envirocare
 - 1993 -- 36,953 DES to SEG
 - 4,326 DES to TSCA
 - 1987 -- 16,615 DES to Scientific Ecology Group (SEG)
 - 181 DES to Toxic Substance Control Act (TSCA)
- * Includes shipments to other locations than NTS:

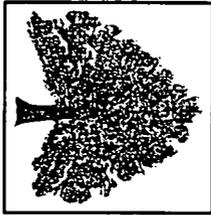
YEAR	DES
1985	319
1986	8,877
1987	39,163*
1988	57,395
1989	55,029
1990	24,846
1991	43,522
1992	100,596
1993	110,743*
thru May 1994	36,085*
TOTAL	459,779

NUMBER OF DRUM EQUIVALENTS (DES) SHIPPED TO NTS FROM 1985 - MAY 1994



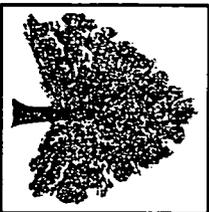
Strategic Planning Background Information

-
- Strategic Planning is a requirement...of the Department of Energy
 - Strategic Planning Alignment Meeting.... held April 18 and 19, 1994
 - Attendees...
DOE...Fernald, Ohio Field Office, Headquarters
Fernald Environmental Restoration Management
Company (FERMCO)
 - Meeting Purpose... develop framework for Strategic Plan



Strategic Plan Key Components

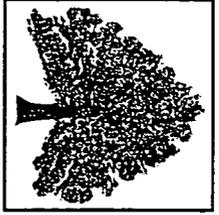
-
- **Vision**
 - **Values**
 - **Mission**
 - **Strategies**
 - **Goals, Goal Champions, Performance Measures**



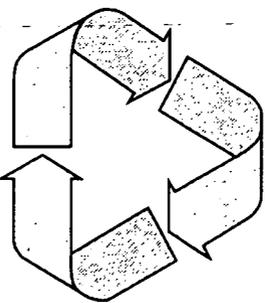
Strategic Goals

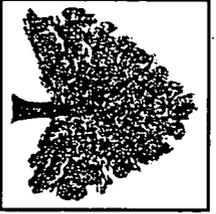
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- **Safety**
 - **Protecting Human Health and the Environment by Eliminating Urgent and Long Term Risks**
 - **Compliance**
 - **Waste Management**
 - **Business Systems/Cost Effectiveness**
 - **Stakeholder Involvement**
 - **Technology and Economic Development**
 - **Organizational Development**

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The Fernald Material Release Process





Material Release Process

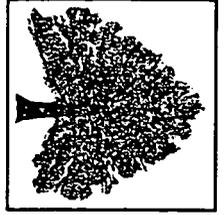
- Fernald has initiated a program to decontaminate and "material-release" unneeded equipment currently located within the process area
- Any material released will meet the requirements of DOE Order 5400.5, Regulatory Guide 1.86 and internal FERMCO ALARA guidelines



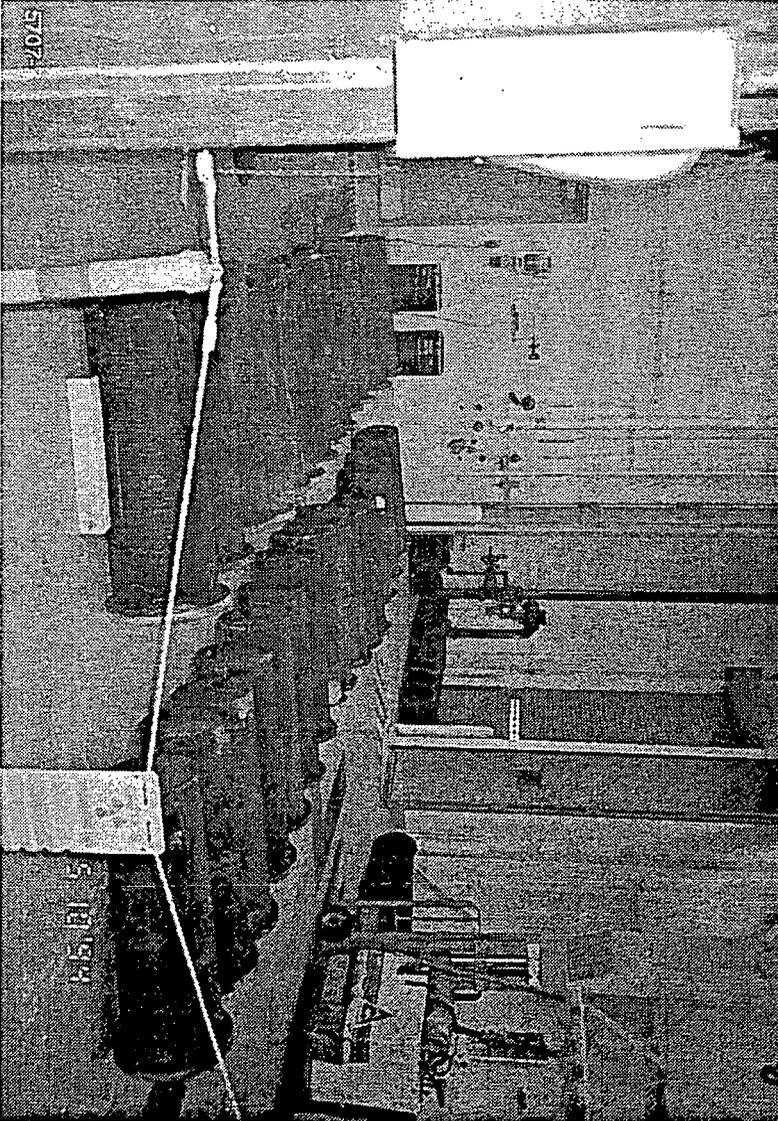
Decontamination and Material-release of unneeded material is an important element of the overall Fernald waste management strategy

- 1. *Minimize what we generate***
- 2. *Recycle when economically feasible***
- 3. *Material-release clean material when possible***
- 4. *Volume-reduce what remains***
- 5. *Utilize on-site disposal if approved under CERCLA***
- 6. *Utilize Commercial Disposal facilities if possible***
- 7. *Bury remaining waste at NTS***

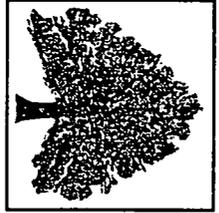
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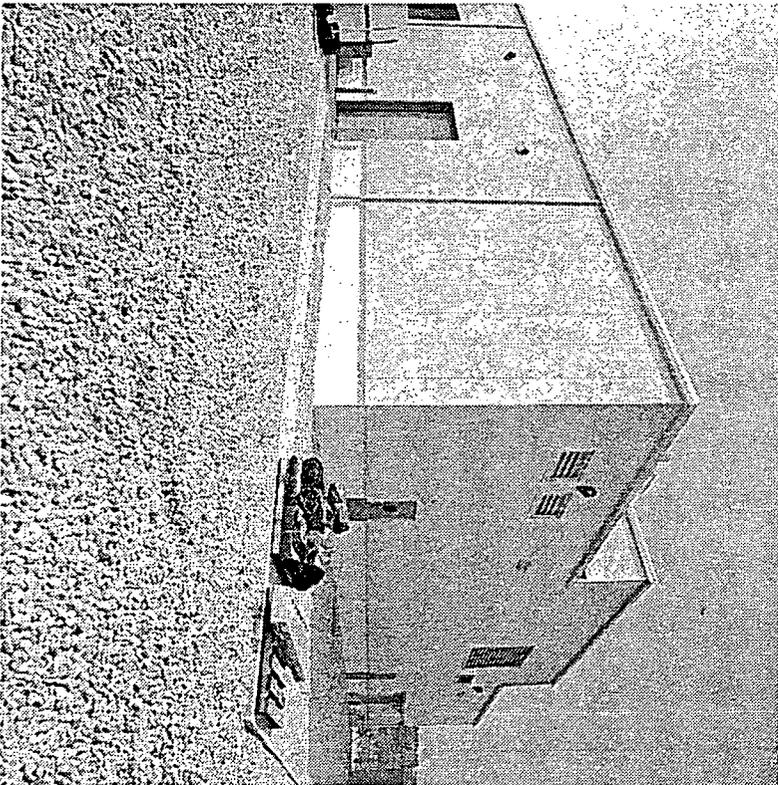
Furnace Pots Prior to Decon & Free Release



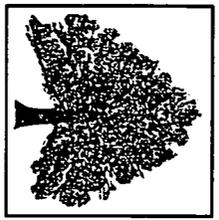
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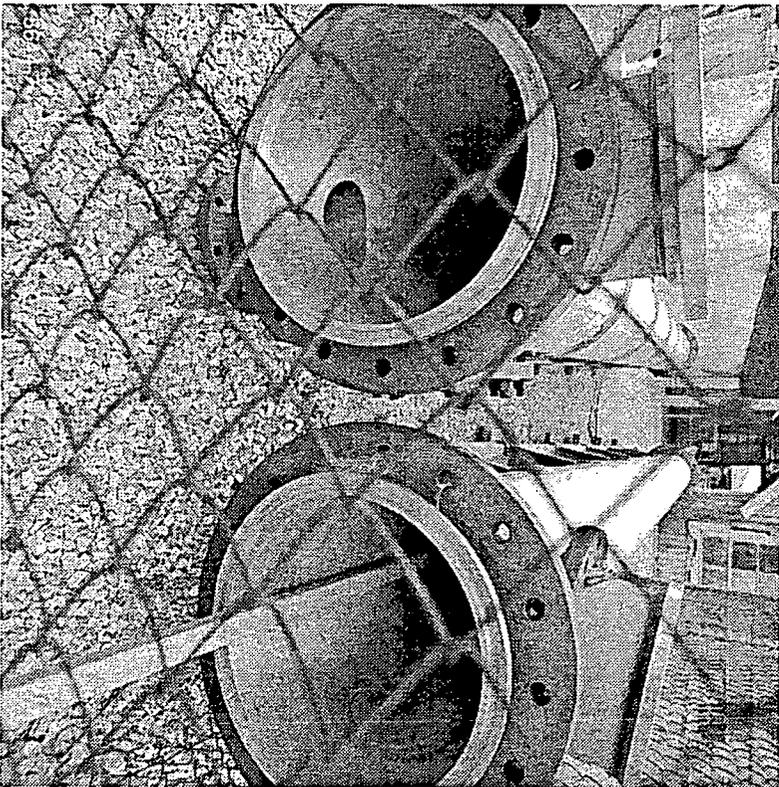
Material Release Facility

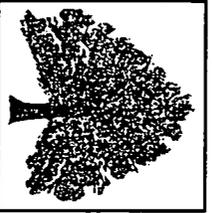


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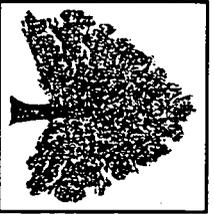
Free-Release Candidate Material





What kind of material should be released?

-
- **Clean material**
 - **Unused construction material**
 - **Unused production inventory**
 - **Unused maintenance inventory**
 - **Non-process related equipment**
 - **Selected process equipment**
 - **Surface-contaminated material**
 - **Equipment that can "easily" and cost effectively be decontaminated by current FERMO staff utilizing existing facilities**

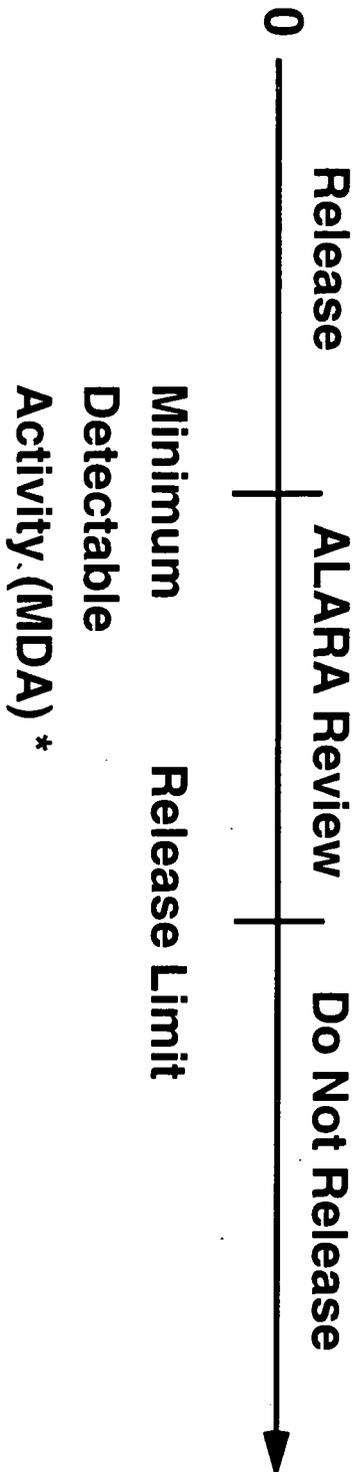


Why Fernald should release material now

-
- **Un-necessary material can**
 - **Become contaminated**
 - **Deteriorate and lose value**
 - **Create safety hazards**
 - **Get in the way of other cleanup efforts**
 - **Material release will**
 - **Demonstrate commitment to cleanup**
 - **Show visible cleanup progress**
 - **Reduce the scope of work after ROD approval**
 - **Material release is relatively inexpensive compared to burial**
 - **The program can effectively utilize the existing Fernald work force**



Release Criteria

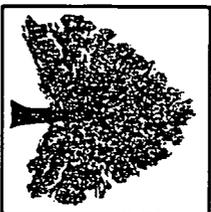


*** Not distinguishable from background**



Dose Comparison

- Furnace Pot Example -
 < .01 mrem/year
- Residence in Masonry Building -
 7 to 11 mrem/year
- U.S. Average Annual Background Dose -
 280 mrem/year



Example Furnace Pot ALARA Assessment

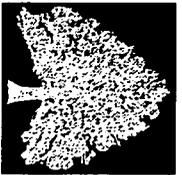
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- 100 Tons of Furnace Pots
- 25% of Surface Greater Than MDA but Less Than DOE Limit (5000 dpm/100cm²)

$$\frac{130,000 \text{ cm}^2}{\text{ton}} \times 25\% = \frac{5000 \text{ dpm}}{100 \text{ cm}^2} = \frac{1.6 \times 10^6 \text{ dpm}}{\text{ton}}$$

$$\frac{1.6 \times 10^6 \text{ dpm}}{\text{ton}} \times 9.1 \times 10^5 \text{ gm} = \frac{2.2 \text{ dpm}}{\text{pci}} = \frac{0.8 \text{ pci}}{\text{gm}}$$

$$\frac{0.8 \text{ pci}}{\text{gm}} = < 0.01 \frac{\text{mrem}}{\text{Year}} \text{ General Public}$$



OPERABLE UNIT 1 - WASTE PITS

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INCLUDES:

- Waste Pits 1 through 6
- Clearwell
- Burripit
- Berms, Liners and Soils Within the OU Boundary

OBJECTIVE:

Stabilize, Isolate and/or Treat the Waste and Any Associated Soils and Groundwater to Prevent Further Release or Migration of Contaminants to the Environment.

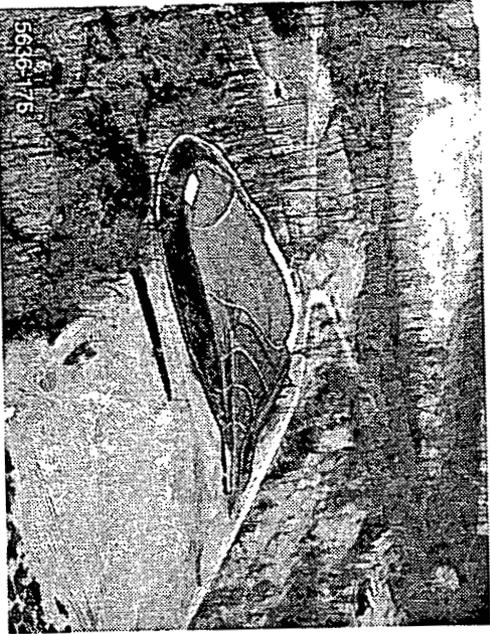
SCHEDULE:

Submitted Draft Feasibility Study/Proposed Plan to U.S. EPA March 1994
Record of Decision November 1994



OPERABLE UNIT 2 - OTHER WASTE UNITS

000023



INCLUDES:

- Flyash Piles
- Lime Sludge Ponds
- Solid Waste Landfill
- Other South Field Disposal Areas
- Berms, Liners and Soils Within the OU Boundary

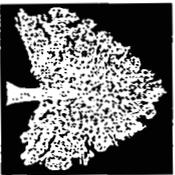
OBJECTIVE:

Mitigate a Potential Source of Contamination Resulting from Large Volumes of Waste Material that May Have Been Contaminated with Hazardous Chemical and Radioactive Materials During Fernald Operations.

SCHEDULE:

- Submitted Draft Remedial Investigation Report to U.S. EPA February 1994
- Submitted Draft Feasibility Report/Proposed Plan to U.S. EPA April 1994
- Record of Decision January 1995

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OPERABLE UNIT 3 - FORMER PRODUCTION AREA

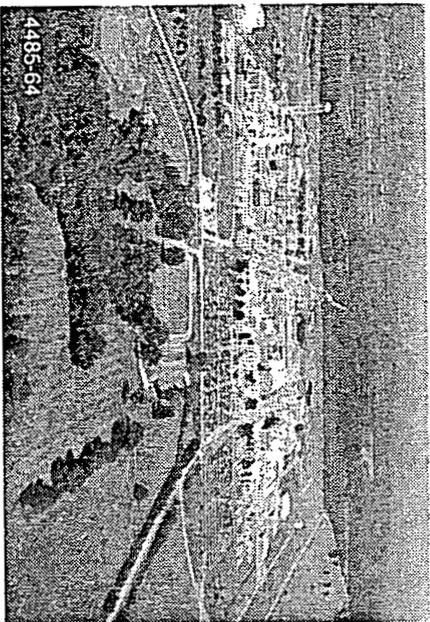
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INCLUDES:

- All Man-Made Structures and Facilities at the Fernald, Above and Below Ground. Facilities Specifically Excluded from OU3 are:
 - K-65 Area (OU4)
 - Waste Storage Pits (OU1)
 - Fly Ash Piles (OU2)

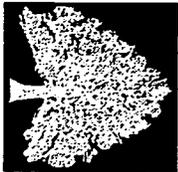
OBJECTIVE:

The Conduct of Environmental Investigations, Studies, Designs, Removal Actions, and Remedial Actions Necessary to Eliminate or Mitigate the Risks Posed to the Environment and Public Health by Contaminants Located Within OU3.



SCHEDULE:

- Submitted Proposed Plan/Environmental Assessment for Interim Remedial Action (Decontamination and Demolition of Former Production Buildings) December 1993
- Submit Draft Remedial Investigation Report/Baseline Risk Assessment to U.S. EPA March 1996
- Submit Draft Feasibility Study/Proposed Plan to U.S. EPA August 1996
- Submit Draft Proposed Record of Decision April 1997



OPERABLE UNIT 4 - SILOS

000025



INCLUDES:

- Silos 1 and 2 (K-65 Silos)
- Silo 3 - Metal Oxides
- Silo 4 - Empty
- Decant Sump System
- Soils and any Buried Concrete
- Berm Surrounding Silos 1 and 2
- Perched Water (Encountered During Remediation)

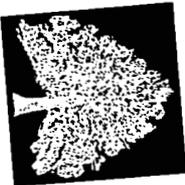
OBJECTIVE:

Treat, Stabilize or Isolate the Silo Contents, Structures and Affected Areas to Prevent Further Release or Migration of Contaminants to the Environment.

SCHEDULE:

Received Conditional U.S. EPA Approval or Remedial Investigation Report January 1994
Received Conditional U.S. EPA Approval of Feasibility Study/Proposed Plan February 1994
Record of Decision August 1994

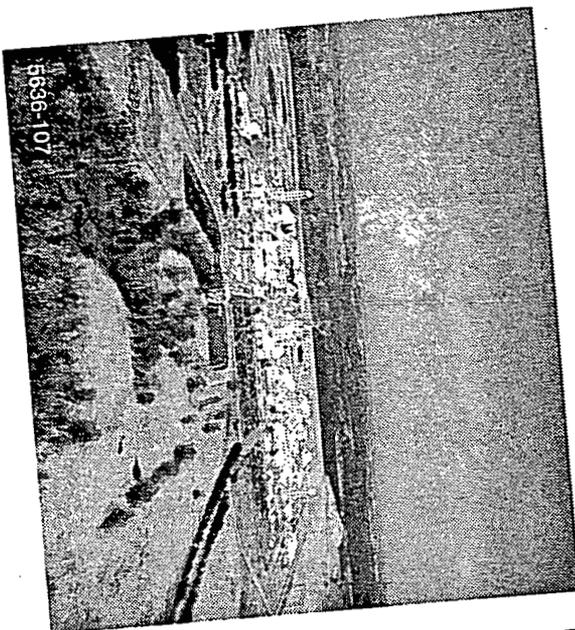
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OPERABLE UNIT 5 - ENVIRONMENTAL MEDIA

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INCLUDES:

- Groundwater (Great Miami Aquifer)
- Groundwater (Perched Water)
- Surface Water
- Soils (Not Associated with OU1 - OU4)
- Sediment
- Flora and Fauna

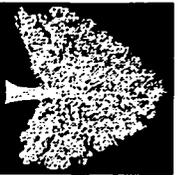
OBJECTIVE:

To Protect Human Health and the Environment by Preventing Exposure to Contaminated Soils or Water and to Prevent Further Contamination of Area Soils, Water, Flora and Fauna.

SCHEDULE:

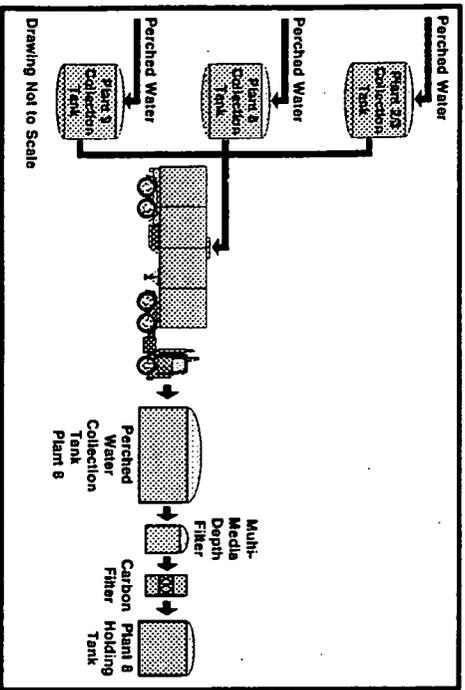
- Submit Final Remedial Investigation Report/Baseline Risk Assessment to U.S. EPA September 1994
- Submit Final Feasibility Study Report/Proposed Plan to U.S. EPA February 1995
- Record of Decision September 1995

Fernald Environmental Management Project



REMOVAL ACTION #1 CONTAMINATED WATER BENEATH FERNALD BUILDINGS

000027



OBJECTIVE/BENEFIT:

- Minimize the Potential for Uranium-Contaminated Groundwater to Infiltrate the Underlying Aquifer from Perched Water Zones Located Beneath Significantly Contaminated Portions of the Former Production Area.

ACTIVITIES:

- Extraction Facilities have been installed.
- Treatment Removes Volatile Organic Compounds (VOCs) and Uranium Prior to Discharge to River.
- Pumping of Perched Groundwater in Progress Only at Certain Locations Due to Temporary Outage of VOC Treatment System and Need to Work Off Accumulated Drummed Backlog. Full Operation Expected to Resume in June 1994.
- Addition of Plant 6 Motor Bay Sump Perched Water Collection for Treatment in VOC System Completion Scheduled for Late June 1994.

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SCHEDULE:
Pumping to Continue Until Final Remediation



REMOVAL ACTION #2 WASTE PIT AREA RUNOFF CONTROL

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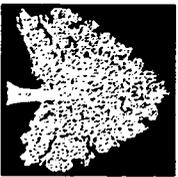
- OBJECTIVE:**
- Reduce Potential Groundwater Contamination from Contaminated Stormwater Runoff.

- BENEFITS:**
- Reduce or Mitigate the Release of Uranium and Other Contaminants to Paddys Run.

- Mitigate the Potential for Contaminants from Surface Water from Reaching the Underlying Aquifer.

- ACTIVITIES:**
- Collection of Runoff in the Waste Pit and Adjacent Areas Through the Installation of Trenches and Dikes.
 - Treatment of Runoff in Existing Fernald Wastewater Treatment Facilities

SCHEDULE:
Project Completed July 30, 1992. System Operational



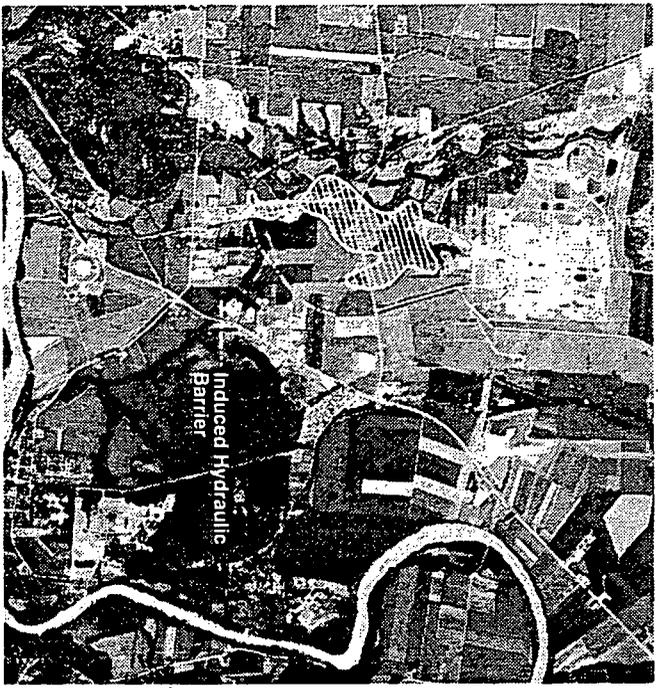
REMOVAL ACTION #3 SOUTH GROUNDWATER CONTAMINATION PLUME

OBJECTIVE:

- Protect Public Health by Limiting Access to the Use of Uranium-Contaminated Groundwater in an Area South of the Fernald Site. The Removal Action is Broken into Five Parts.

ACTIVITIES/BENEFITS:

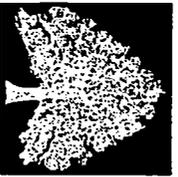
- Part 1) Provide Alternate Water Supply to Affected Industry; Part 2) Extract and Pump Contaminated Groundwater Back to the Fernald Site for Monitoring, Future Treatment, and Discharge to the Great Miami River; 3) Construction and Operation of Interim Advanced Wastewater Treatment System; 4) Groundwater Modeling and Controls to Prevent the Use of Contaminated Groundwater, and 5) Additional Groundwater Investigations in the Vicinity of the South Plume.



SCHEDULE:

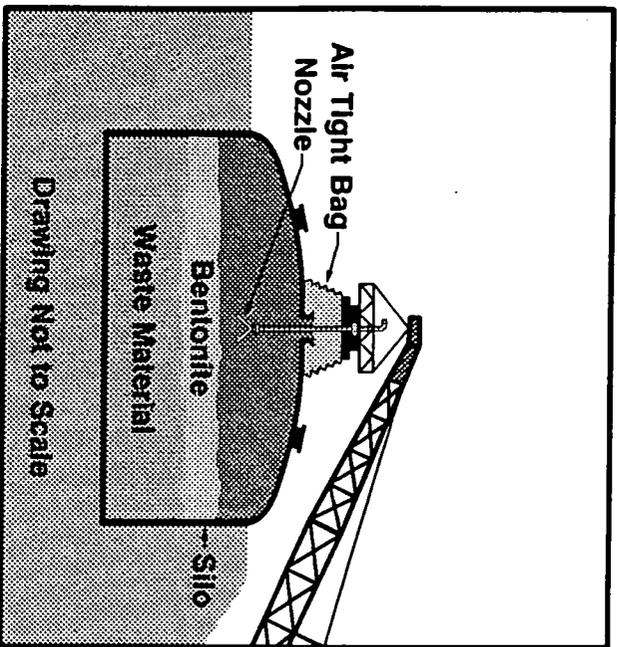
- Part 1 was Completed on Schedule in December 1992
- Part 2 was Completed on Schedule in August 1993
- Part 3 is Complete and Operational
- Part 4 is Ongoing
- Part 5 Fieldwork has been Completed

5672



REMOVAL ACTION #4 SILOS 1 AND 2

000030



OBJECTIVE:

- Reduce Chronic Radon Emissions from Silos 1 and 2.

BENEFITS:

- Decrease, Mitigate, or Otherwise Control the Threat of a Release in the Event of a Silo Dome Collapse.
- Reduce Potential Radon Exposure of Both On-Site and Off-Site Personnel.

ACTIVITIES:

- This Removal Action Consisted of Placing Bentonite Clay Over the Top of the Residues Contained in Each Silo.

SCHEDULE:

This Removal Action was Completed in November 1991. DOE Continues to Monitor the Effectiveness of the Bentonite. This Data has Been Provided to the U.S. EPA. The Radon Head Space Concentration Post-Bentonite Installation has Been Reduced by Approximately 90 Percent.



REMOVAL ACTION #5 K-65 DECANT SUMP TANK

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OBJECTIVE:

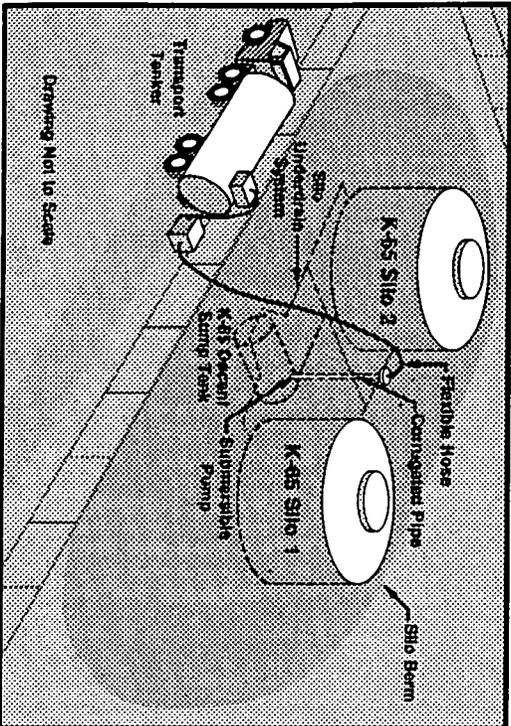
- Reduce the Potential for Leakage of Contaminated Water into Surrounding Soils.

BENEFIT:

- Liquid was Analyzed at Off-Site Laboratory to Determine Proper Treatment and Disposition.

ACTIVITIES:

- Approximately 9,000 Gallons of Water was Removed, Analyzed, and Treated Through Existing Wastewater Treatment Systems at Fernald Prior to Discharge to the Great Miami River. The K-65 Decant Sump Tank was Used to Collect and Store Liquid that Drained from the K-65 Silos as the Slurried Material Settled.



LOCATION OF K-65 DECANT SUMP TANK

SCHEDULE:

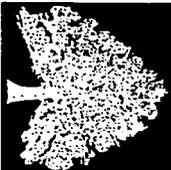
This Removal Action was Completed in April 1991.

Additionally During Late January and Early February 1993, Approximately 6,800 Gallons of Liquid Were Pumped from the Decant Sump Tank in a Maintenance Action and Transported to Holding Tanks at Plant 2/3. The Liquid will be Dispositioned Following Receipt of Analytical Data from Samples Collected from the Stored Liquid. Further Maintenance Actions Will be Performed as Required to Maintain the Liquid Level in the Tank at Less Than 75 Percent of Capacity.

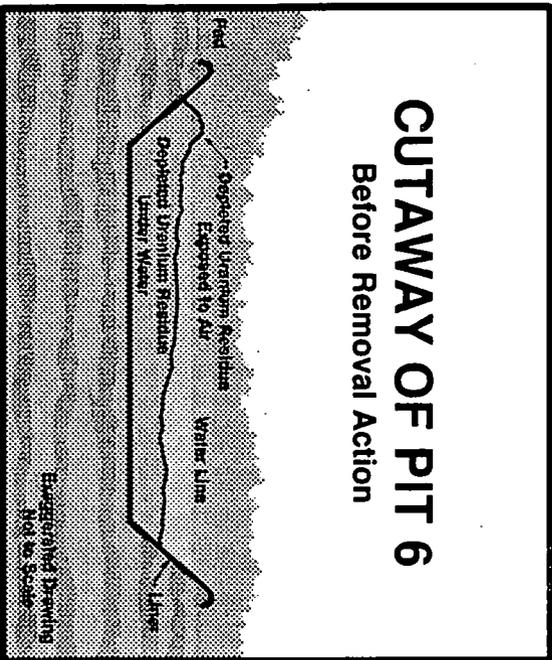
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Fernald Environmental Management Project

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REMOVAL ACTION #6 WASTE PIT 6 RESIDUES



OBJECTIVE:

- Eliminate the Potential for Airborne Emissions Due to Wind Erosion from the Fernald Site Waste Pit Area.

BENEFITS:

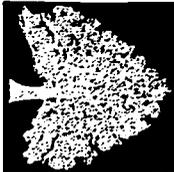
- Mitigate Source of Potential Airborne Fugitive Dust Emissions.

ACTIVITIES:

- A Mound of Approximately 4,800 Square Feet of Dried Radioactive Waste was Submerged Below the Water Line and Distributed Evenly Below the Surface of the Water. The Mound Contained Process Residues, Asbestos, Depleted Slag, Green Salt, and Filter Cake from Past Operations at the Fernald Site.

SCHEDULE:

This Removal Action was Completed in December 1990



REMOVAL ACTION #7 PLANT 1 PAD CONTINUING RELEASE

000033

OBJECTIVE:

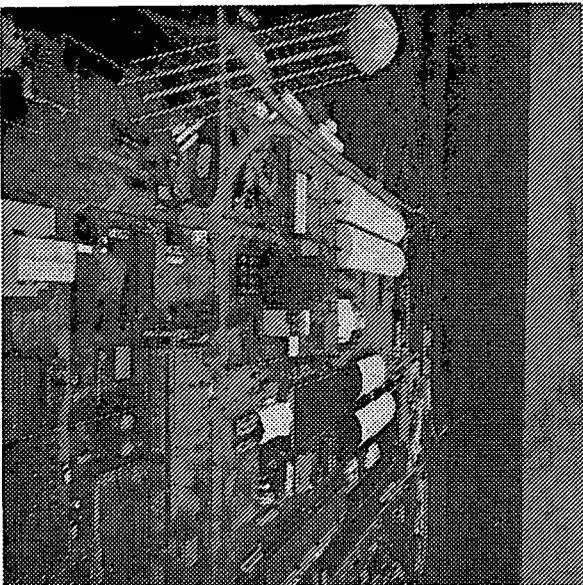
- Upgrade 440,000 Square Feet of the Existing Plant 1 Pad Plus Provide 80,000 Square Feet Additional Covered Storage Facilities.

BENEFIT:

- Control the Potential for Migration of Contaminants from Materials Stored on the Pad into Surrounding Environmental Media.

ACTIVITIES: Three Phase Approach:

- Phase I - Implement Run-on/off Control Measures.
- Phase II - Installation of 80,000 Square Feet of New Covered and Controlled Storage Facilities and Upgrade 100,000 Square Feet of the Existing Concrete Pad.
- Phase III - Upgrade 340,000 Square Feet of the Existing Plant 1 Storage Pad, Provide 22,500 Square Feet of Covered Storage Facility.



SCHEDULE:

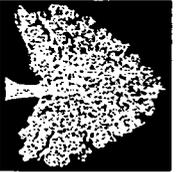
- Phase I and II are Complete
- Phase III Construction Commenced August 13, 1993
- Phase III Construction Scheduled for Completion November, 1994
- Complete Removal Action by February 19, 1995

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5672



REMOVAL ACTION #8 INACTIVE FLYASH PILE CONTROL

000034



- OBJECTIVE:**
- Prevent Unauthorized Intrusion/Access into Radiological Surface Soil Contamination Area.

- BENEFITS:**
- Minimization of Potential Risk to Human Health.

- ACTIVITIES:**
- This Removal Action Consisted of Posting of Warning Signs and Installing a Chain Barrier Around the Perimeter of the Inactive Flyash Pile/Other South Field Disposal Areas.

SCHEDULE:
This Removal Action was Completed in December 1991
Ongoing Maintenance Required

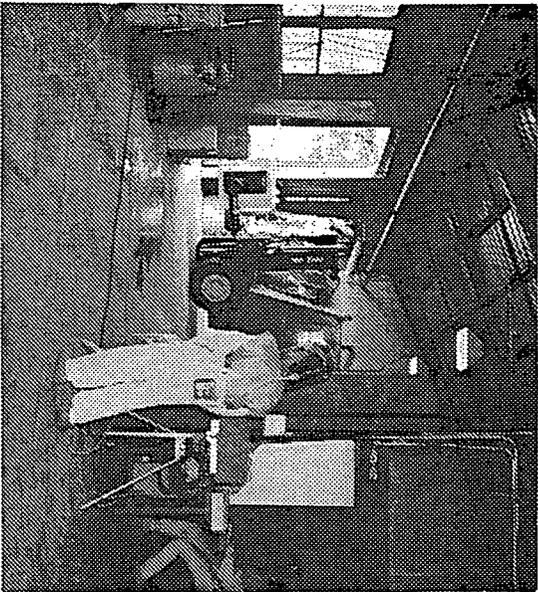


REMOVAL ACTION #9

REMOVAL OF WASTE INVENTORIES

THORIUM AND PCB MANAGEMENT

000035



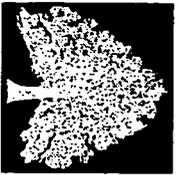
- OBJECTIVE:**
- Off-Site Removal of Low-Level Radioactive Waste (LLRW) Inventories, Overpacked Thorium Materials, and Management of PCBs and PCB Items.

- BENEFIT:**
- Management and Disposal of Legacy and Targeted Priority Waste Materials to Reduce the Risk to Human Health, Safety, and the Environment at the Site and Surrounding Communities.

- ACTIVITIES:**
- Characterization, Packaging/Overpacking, and Disposition of LLR Materials
 - Shipment of LLRW to the Nevada Test Site (NTS)
 - Overpacking and Shipment of Thorium Material to NTS
 - Management and Storage and/or Shipment of PCBs and PCB Materials

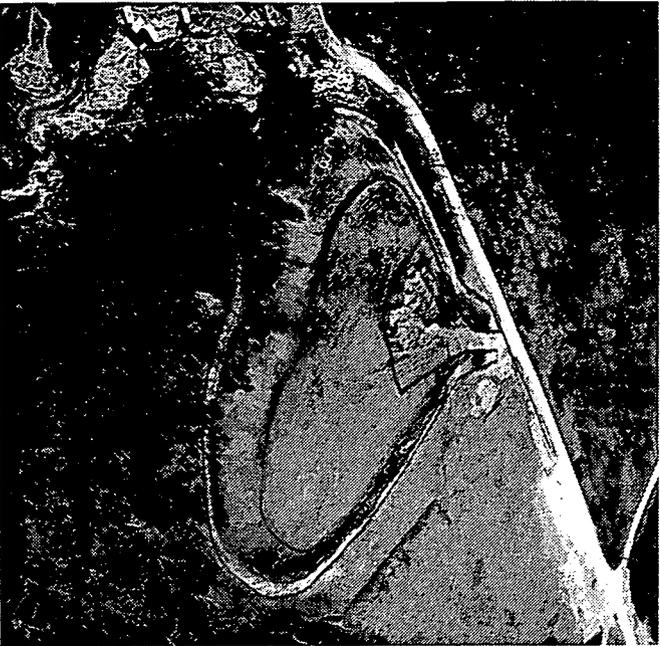
- SCHEDULE:**
- Disposal of 71,000 Drum Equivalents (DES) of LLRW to NTS in Fiscal Year (FY) 1994
 - Ship 4,450 DES of Thorium Materials in FY 1994
 - Develop the Required CERCLA Removal Documents

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REMOVAL ACTION #10 ACTIVE FLYASH PILE CONTROLS

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OBJECTIVE:
•Control Wind and Water Erosion of Active Flyash Pile.

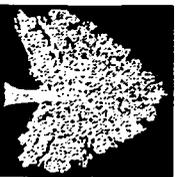
BENEFITS:

- Minimize Wind and Surface Water Erosion.
- Reduce Fugitive Dust Emissions.
- Protective of Human Health and Safety.

ACTIVITIES:

- This Removal Action Consisted of a Combination of Control Measures to Minimize Fugitive Dust Emissions and Stormwater Runoff. A Silt Fence was Installed Around the Base of the Pile to Mitigate Stormwater Runoff and Wind Barriers were put in Place to Mitigate Wind Erosion. Minor Grading and Compaction were Conducted and a Chemical Spray was Applied to the Surface to Provide Stabilization.

SCHEDULE:
This Removal Action was Completed in June 1992
Ongoing Maintenance Required



REMOVAL ACTION #11 PIT 5 EXPERIMENTAL TREATMENT FACILITY

000037

OBJECTIVE:

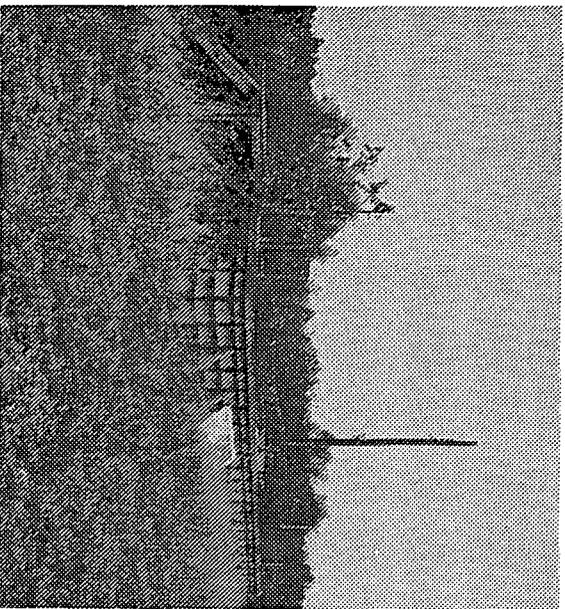
- Reduce the Spread of Contamination and Exposure of Personnel to ETF Wastes.

BENEFITS:

- Reduce or Mitigate the Release of Waste Materials Contained in the ETF to the Surrounding Area.
- Reduce or Mitigate the Potential for Exposure of Personnel through Removal of the ETF.

ACTIVITIES:

- Remove and Dispose of the Vegetation Surrounding the ETF.
- Collect, Containerize, and Store Waste Material Contained Within the ETF Structure.
- Collect, Containerize, and Store Filter Bed and ETF Wooden Structure.
- Sample and Analyze the Soil Affected by the ETF.



SCHEDULE:

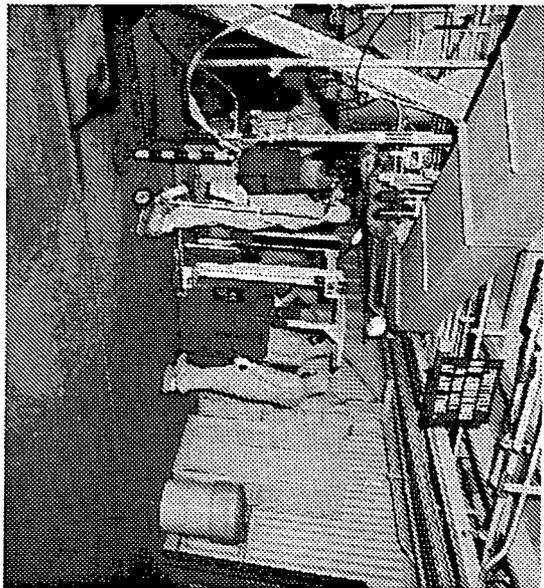
This Removal Action was Completed in March 1992

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REMOVAL ACTION #12 SAFE SHUTDOWN

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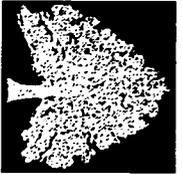


- OBJECTIVE:**
- Removal and Disposition of Uranium and Process Materials from Fernald Site Buildings.

- BENEFITS:**
- Eliminates Source Term for Further Environmental Releases. Enhances ALARA Goals. Provides Necessary Preliminary Step for Preparation of the Systems for Subsequent Decontamination and Dismantling.

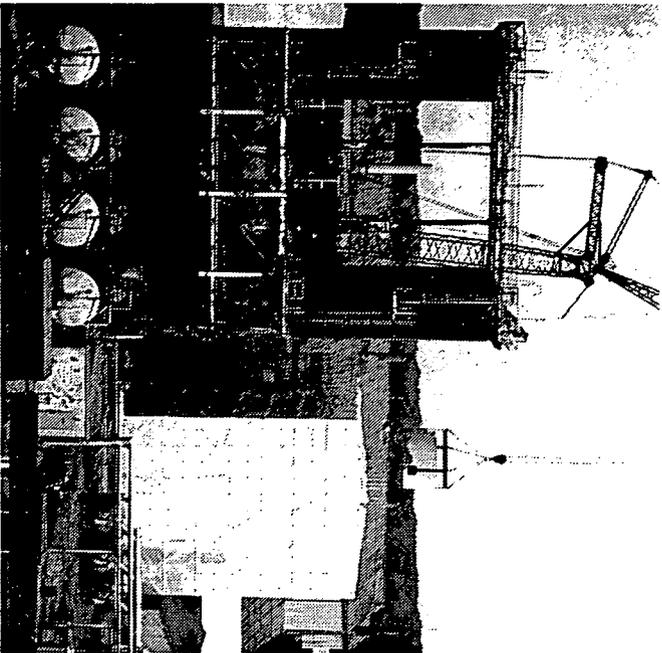
- ACTIVITIES:**
- Document Ongoing Shutdown Activity which will Remove Uranium and Other Process/Raw Materials from Equipment and Lines in Areas of Formerly Used Processing Equipment in Plants 1, 2/3, 4, 5, 6, 7, 8, 9 and the Pilot Plant. Systematic, Plant by Plant Implementation of Safe Shutdown and Incorporation of Results into OU3 RI/FS.

- SCHEDULE:**
- Submit Updated Procedures June Annually
 - Continue Shipment of Depleted Uranium Derbies to Buyer (68 of 440 Metric Tons of Uranium Shipped; Completion Scheduled December, 1996)
 - Continue to Pursue Outside Interest in Uranium
 - Ongoing Safe Shutdown Implementation Period Through September 30, 1997



REMOVAL ACTION #13 PLANT 1 ORE SILOS

000039



- OBJECTIVE:**
- Dismantle the Plant 1 Ore Silos and Support Structure.

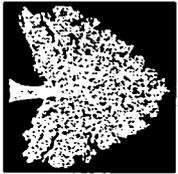
- BENEFITS:**
- Eliminates Threat of Additional Material Releases.
 - Eliminates Safety Hazard Due to Structural Deterioration of the Silos and Supporting Structure.

- ACTIVITIES:**
- Remove, Containerize, Characterize, and Dispose of the Material Identified to Exist in the Silos. All 14 Silos at Plant 1 will be dismantled Under this Removal Action.

- SCHEDULE:**
- Submitted Final Work Plan to U.S. EPA July 1992
 - Initiated Field Activities October 1992
 - Complete Field Activities by October 1994
 - Complete Removal Action by December 1994

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REMOVAL ACTION #14 CONTAMINATED SOILS ADJACENT TO SEWAGE TREATMENT PLANT INCINERATOR

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OBJECTIVE:

- To Address Contaminated Soils with Elevated Levels of Uranium.

BENEFIT:

- Mitigates the Potential for Migration of Contamination.

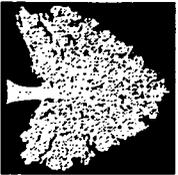
ACTIVITIES:

- Remove and Dispose of Contaminated Soils in the Vicinity of an Out-of-Service Solid Waste Incinerator at the Sewage Treatment Plant.

SCHEDULE:

- Completed Phase I (Walkover Survey) August 1992

- Completed Phase II (Excavation and Verification Sampling) October 1992
- Completed Additional Off-Property (Walkover Survey) July 1993
- Completed On-Site Excavations, Excluding Thorium 230 Hot Spots November 1993
- Completed Off-Property Vegetation Removal December 1993
- Completed Off-Property Soil Removal February 1994
- Completed Additional Sampling Around Thorium 230 Hot Spots February 1994
- Excavate Off-Property Pockets of Contamination June 1994
- Submit Final Report December 1994



REMOVAL ACTION # 15 SCRAP METAL PILES

000041

OBJECTIVE:

- Removal and Beneficial Reuse of Low-Level Radio-active Waste Scrap Metal Off-Site.

BENEFIT:

- Eliminate Potential Air Emission Source and Reduce Releases to Surge Lagoon and Great Miami River by Eliminating Source Contamination to Surface Water Runoff.

ACTIVITIES:

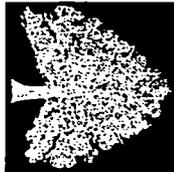
- Off-Site Removal, Treatment, and Disposition of 3,000 Tons of Recoverable Scrap Metal.
- Material Includes Approximately 1,300 Tons of Scrap Copper and Other Small Metal Piles.

SCHEDULE:

- Submitted Final Work Plan to U.S. EPA June 1992
- Packaged and Shipped All Ferrous and Non-Ferrous Materials to Offsite Subcontractor September 1993
- Completed Melting of Scrap Metal for Restricted Reuse March 1994
- Submit Final Report for Phase II March 1995

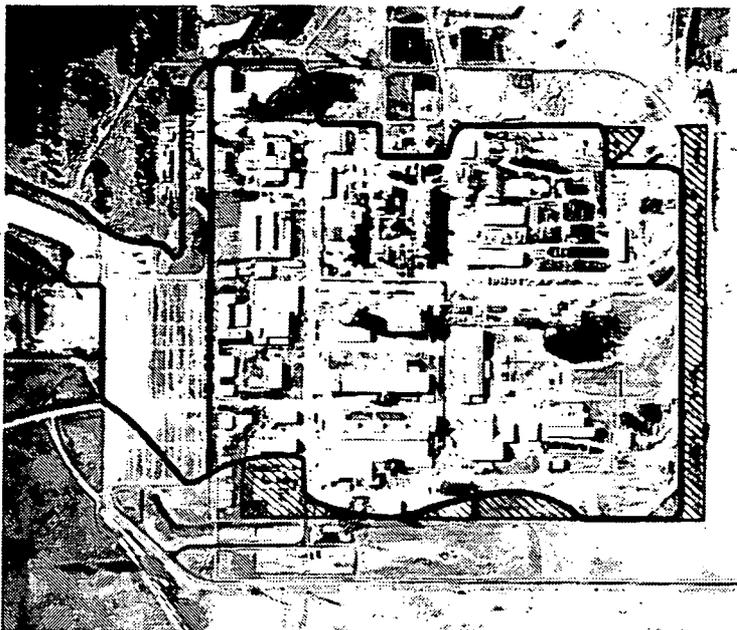


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REMOVAL ACTION #16 COLLECT UNCONTROLLED PRODUCTION AREA RUNOFF

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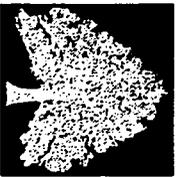
- OBJECTIVE:**
- Collect Uncontrolled Process Areas Runoff.

- BENEFITS:**
- Reduce or Mitigate the Release of Uranium and Other Contaminants to Paddys Run.
 - Mitigate Flow of contaminants from Surface Water to Underlying Aquifer.

- ACTIVITIES:**
- Redirection of Subdrainage Areas and Collection of Runoff from Perimeter of Former Process Area to Site. Stormwater Retention Basin has been Completed.

SCHEDULE:
Completed Removal Action on August 20, 1993

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REMOVAL ACTION #17 IMPROVED STORAGE OF SOIL AND DEBRIS

000043



OBJECTIVE:

- Construct Improved Storage Structures and Develop a Site Wide Management Concept and Implementation Strategy for the Improved Storage of Soil and Debris and Management of Associated Storage Facilities.

BENEFIT:

- Minimize Potential Contaminant Migration from specific Storage Areas and Provide Safe and Environmentally - Sound Management and Interim Storage of Soil and Debris.

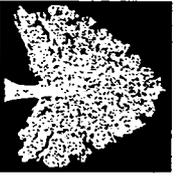
ACTIVITIES:

1. Revise Existing Procedures for Management and Control.
2. Identify Suitable Areas for Storage of Soil and Debris.
3. Establish Current and Future Policy and Engineering Approaches for Handling of Soil and Debris.
4. Evaluate the Engineering Approaches Considered with Respect to Applicable, Relevant and Appropriate Requirements (for ARARs).
5. Design and Construction of Three Improved Storage Structures.
6. Regrade and Seed One Large Existing Soil and Rubble Pile

SCHEDULE:

- Submitted Final Work Plan to U.S. EPA August 1992
- Provided Phase I Storage Upgrades for Existing Piles July 1992
- Received U.S. EPA Approval and Ohio EPA Concurrence for Final Work Plan December 1992
- Complete Construction of One Storage Facility and Regrade and Seed One Existing Soil and Rubble Pile May 1995; Other Facilities on Hold Pending EPA Concurrence With Proposed Changes

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REMOVAL ACTION #18 CONTROL EXPOSED MATERIALS IN PIT 5

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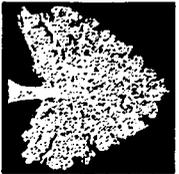


- OBJECTIVE:**
- Control Surface Emission of Radionuclide Contamination from Waste Pit 5.

- BENEFITS:**
- Reduce or Mitigate Worker Exposure and Exposure to Off-Site Residents Due to Airborne Radionuclide Contamination.

- ACTIVITIES:**
- Evaluated Alternatives for Emission Control and Selected Preferred Approach.
 - Prepared Work Plan Using Preferred Alternative (Dredging) and Obtained EPA Approval.

SCHEDULE:
This Removal Action was Completed in December 1992



REMOVAL ACTION #19 DECONTAMINATION AND DISMANTLING OF PLANT 7

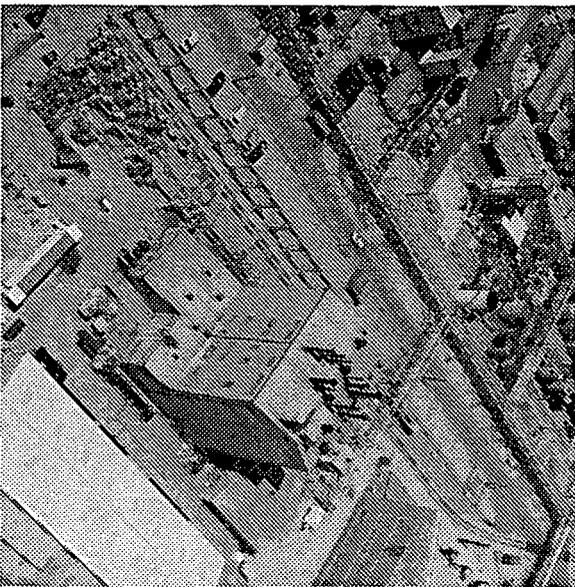
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OBJECTIVE/BENEFIT:

Mitigate Potential Contaminant Releases and Support the DOE Integrated Technology Demonstration Program. D&D will also Serve as a Pilot Program for Future Remedy of the Site.

ACTIVITIES:

Decontaminating and Dismantling Operations will be Conducted. After Equipment Removal, the Building Demolition and Removal will begin. The Major Activities Anticipated Include: 1) Relocation of Stored Drummed Material and Debris; 2) Removal of Interior Asbestos Insulation; 3) Provision for Surface Decontamination of Interior Components; 4) Termination of Utility Services; 5) Removal of the Transite Surface Panels; 6) Dismantling of the Structural Steel.



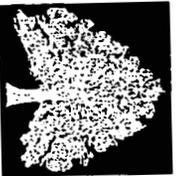
SCHEDULE:

- Completed Relocation of Stored Drum Material and Debris August 1993
- Completed Removal of Interior Asbestos Insulation October 1993
- Completed Surface Decontamination of Interior Components November 1993
- Awarded Subcontract to PDG, Inc. November 1993
- Began Interior Dismantling Work February 1994
- Began Exterior Dismantling Work June 1994
- Completion of Removal Action Scheduled December 1994

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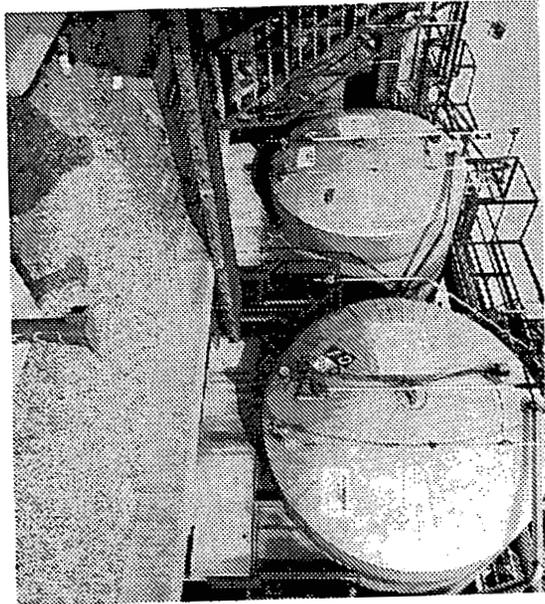
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Fernald Environmental Management Project



REMOVAL ACTION #20 NEUTRALIZATION OF UNH INVENTORIES

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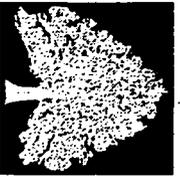


- OBJECTIVE:**
- Remove and Prepare for Shipment 220,000 Gallons of Acidic UNH Currently Stored in 21 Tanks in and Around Plant 2/3.

- BENEFIT:**
- Mitigate Potential Releases to Environment.

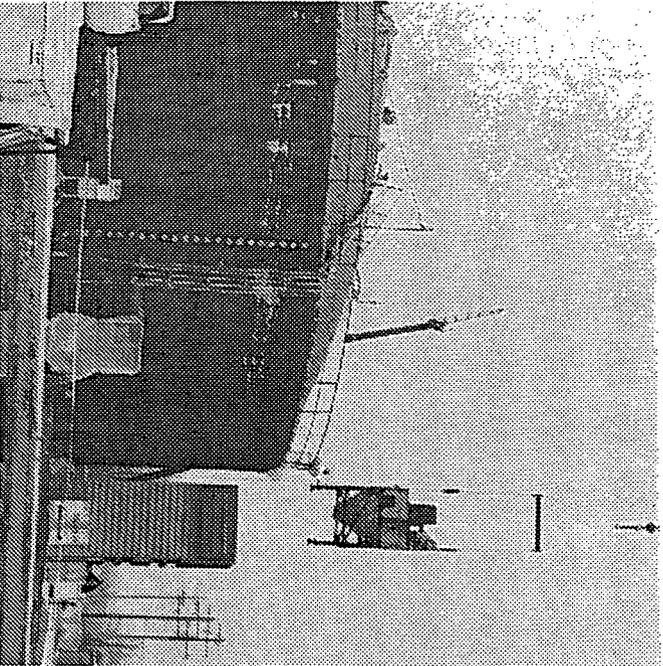
- ACTIVITIES:**
- Neutralize Solutions, Precipitate the Material, Filter the Precipitate, and Package the Resulting Filter Cake in Double Containment for Safe Storage.

- SCHEDULE:**
- Completed Systems Integrity Testing February 1992
 - Completed Neutralization of First Batch of 21,000 Gallons November 1992
 - Completion of Neutralization Scheduled July 1995



REMOVAL ACTION #21 EXPEDITED SILO 3

000047



- OBJECTIVE:**
- Eliminate the Potential for Release of Radioactive Material to the Environment from the Silo 3 Dust Collector and Hopper Assembly.

- BENEFIT:**
- All Pathways are Permanently Sealed to Prevent the Release of Silo 3 Contents to the Atmosphere. Eliminated the Source of Potential Airborne Emissions.

- ACTIVITIES:**
- The Three-Piece Assembly was Removed from Atop the Silo Dome and Lowered Directly into a Seal/Land Container for Disposal. Piping and Associated Equipment Originally Used to Place Waste in the Silo were also Removed and Prepared for Shipment.

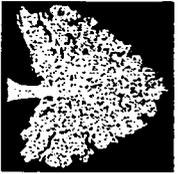
SCHEDULE:

This Removal Action was Completed in January 1992

Shipment of the Assembly to the Nevada Test Site was Completed in October 1992

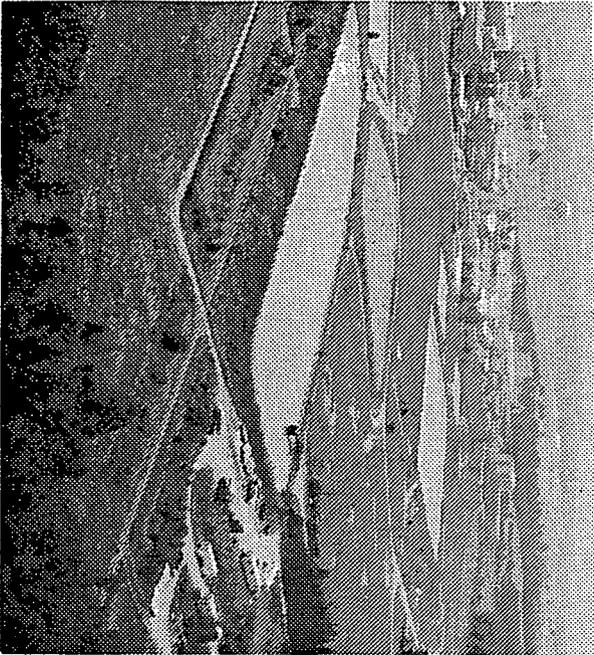


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REMOVAL ACTION #22 WASTE PIT AREA CONTAINMENT IMPROVEMENT

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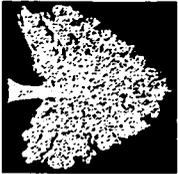


- OBJECTIVE:**
- Minimize the Potential for Wind or Water Erosion of Contaminated Materials from Access Roads and Exposed Surfaces in the Waste Pit Area.

- BENEFIT:**
- Mitigate Sources of Potential Airborne Dust Emissions and Contaminated Surface Water Runoff.

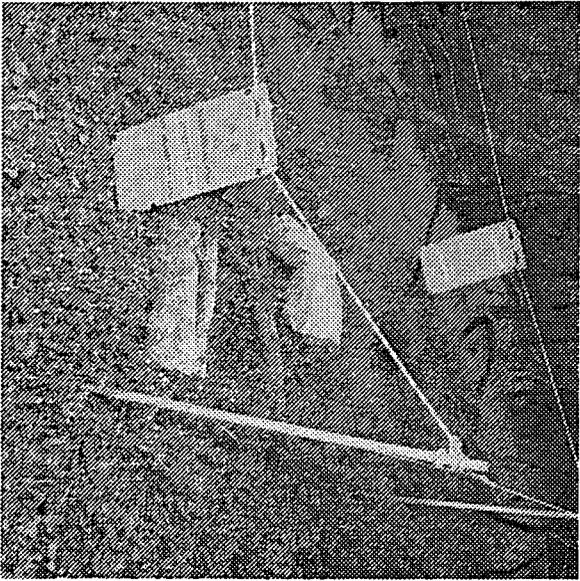
- ACTIVITIES:**
- This Removal Action Included Revegetation (Seeding) of the Pit Area for Erosion Control, and Regrading of Some Existing Stormwater Ditches in the Pit Area to Promote Positive Drainage.

SCHEDULE:
Removal Action Completed August 1993



REMOVAL ACTION #23 INACTIVE FLYASH PILE

000049



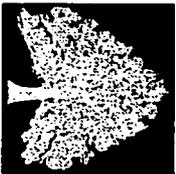
- OBJECTIVE:**
- Removal and Disposition of Isolated Areas of Radiological Surface Contamination in the Inactive Flyash Pile/Other South Field Disposal Areas.

- BENEFIT:**
- Mitigate Potential Migration of Contaminants.

- ACTIVITIES:**
- A Small Amount of Debris Including Soil and Transite Material was Removed from the Inactive Flyash Pile and Placed in Appropriate Containers for Storage Pending Final Disposition.

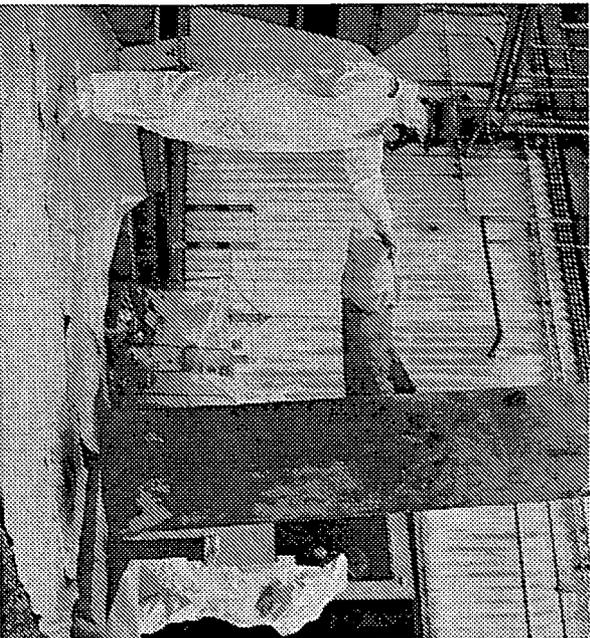
SCHEDULE:

This Removal Action was Completed in June 1992



REMOVAL ACTION #24 PILOT PLANT SUMP

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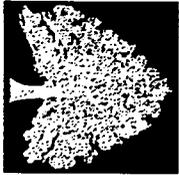
- OBJECTIVE:**
- Remove the Sump and its Liquid and Sludge Containing High Concentrations of Metals.

- BENEFIT:**
- Mitigate Source of Potential Environmental Releases.

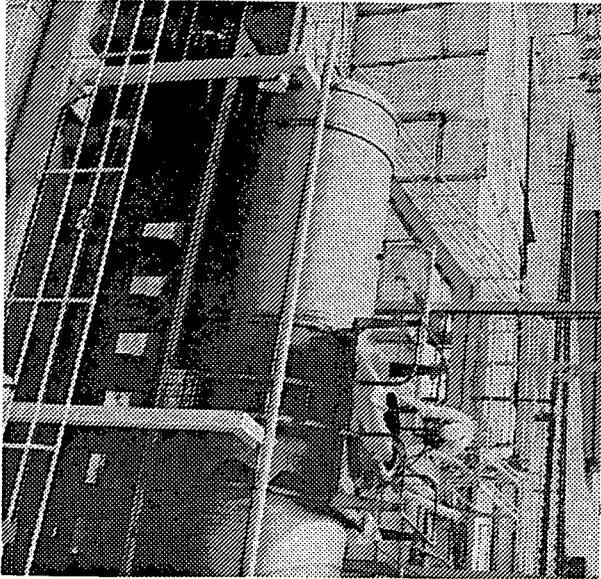
- ACTIVITIES:**
- Pump-out Accumulated Liquid and Sludges, Removal of the Sump, and Identification of Contaminated Soils Resulting from its Operation. Sump was Removed September 17, 1993.

SCHEDULE:

- Received Ohio EPA Work Plan Concurrence January 1993
- Received U.S. EPA Work Plan Approval February 1993
- Completed Project October 1993
- Received U.S. EPA Final Report Approval January 1994



REMOVAL ACTION #25 NITRIC ACID TANK CAR AND AREA



OBJECTIVE:

- Remove Residual Contents Followed by Decontamination and Disposition of the Tank Car.

BENEFITS:

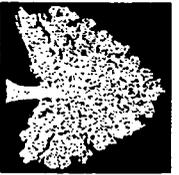
- Mitigate Source of Potential Contamination Releases to the Environment.
- Initiate RCRA Closure Activities for Designated (HWMU) Hazardous Waste Management Unit.

ACTIVITIES:

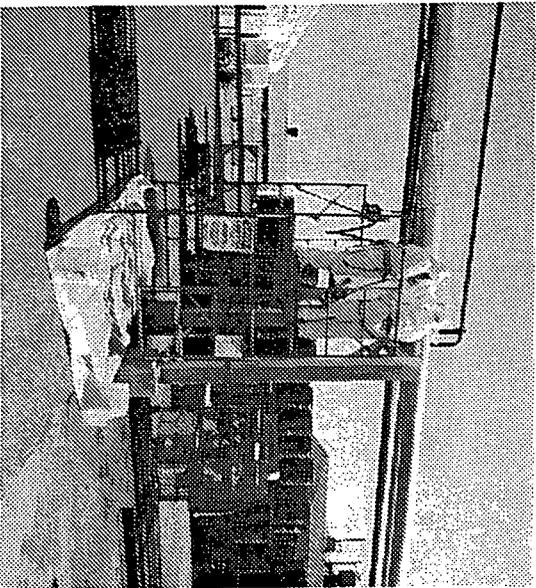
- Removed Residual Contents and Decontaminated Tank Car, Characterized Soils in the HWMU for Contaminants Related to the Tank Car, Soil Excavated in HWMU Completed to Depth of 12 Inches & Dismantled Tank Car.

SCHEDULE:

- Received U.S. EPA Work Plan Approval March 1993
- Received Ohio EPA Work Plan Concurrence May 1993
- Completed Project October 1993
- Received U.S. EPA Final Report Approval December 1993



REMOVAL ACTION #26 ASBESTOS REMOVALS (ASBESTOS PROGRAMS)



OBJECTIVE:

- Manage Ongoing Asbestos Abatement Activity at the Fernald Site.

BENEFIT:

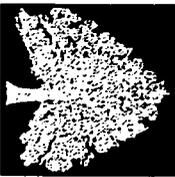
- Mitigate the Potential for Contaminant Release and Migration.
- Reduce Potential for Worker Exposure to Respirable Asbestos.

ACTIVITIES:

- Document Existing Conditions.
- Ongoing Abatements Include:
 - Small-Scale In-Situ Repairs, Encapsulation, and Removals
- Engineering Activity for Large-Scale Abatements

SCHEDULE:

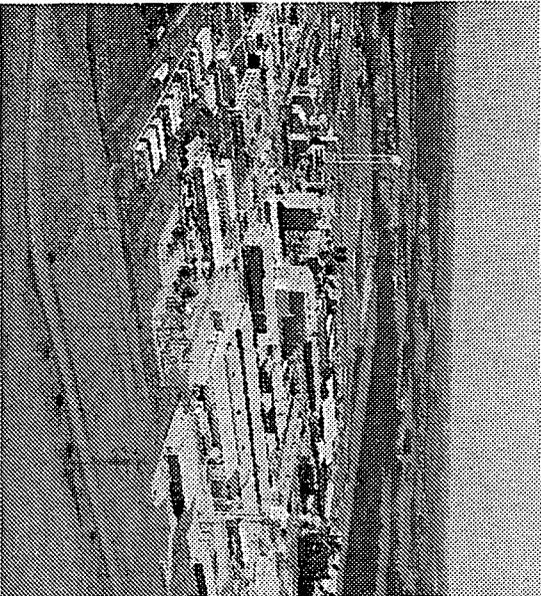
Submit Annual Work Procedures to EPA Each June



REMOVAL ACTION #27

MANAGEMENT OF CONTAMINATED STRUCTURES AT FERNALD

000053



- OBJECTIVE:**
- Establish a Broad-based Removal Action to Support the Implementation of Clean-up Actions at Fernald's Contaminated Facilities.

- BENEFIT:**
- Mitigate the Potential Threat to Human Health and Environment.

- ACTIVITIES:**
- Submit Engineering Evaluation/Cost Analysis (EE/CA) to Support Proposed Removal Actions for Managing Contaminated Structures/Facilities.

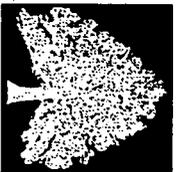
SCHEDULE:

- Submitted Draft EE/CA to U.S. EPA December 1992
- Received U.S. EPA Conditional Approval January 1993
- Submitted final EE/CA June 1993
- EE/CA Superseded by Proposed Interim Remedial Action

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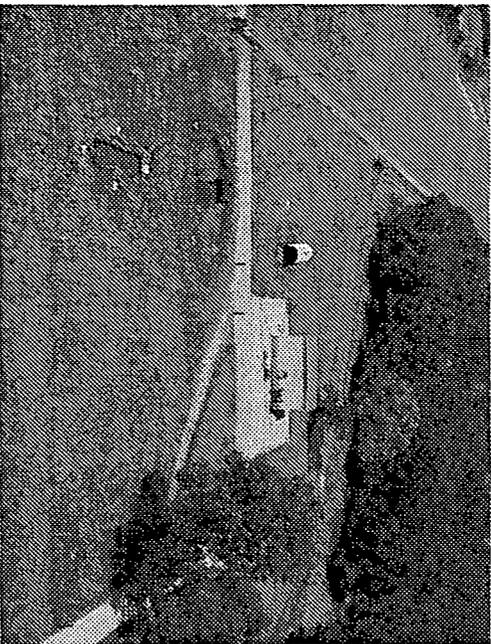
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Fernald Environmental Management Project



REMOVAL ACTION #28 CONTAMINATION AT THE FIRE TRAINING FACILITY

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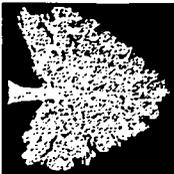
- OBJECTIVE:**
- Removal of Soil Contamination and Contaminated Structures in the Fire Training Area

- BENEFIT:**
- Mitigate Source of Potential Contaminant Releases to the Environment.
 - Initiate RCRA Closure Activities for Designated Hazardous Waste Management Unit

- ACTIVITIES:**
- Remove Contaminated Soil, Buildings, Tanks, Sump, and Pond; Obtain Additional Information on Contaminated Perched Water

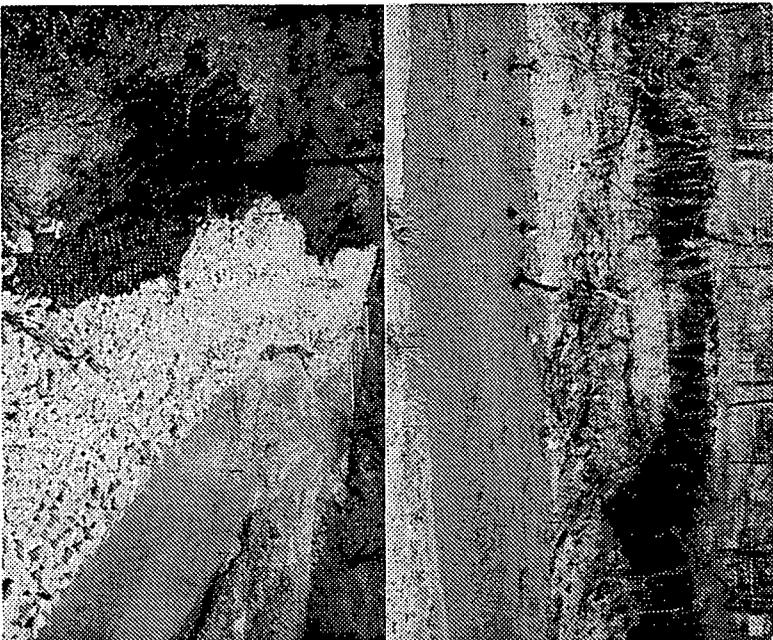
SCHEDULE:

- Submitted Draft Removal Action Work Plan/Closure Plan Information and Data (RAWP/CPID) to U.S. EPA and Ohio EPA June 1993
- Received U.S. EPA Conditional Approval August 1993
- Submitted Final RAWP/CPID U.S. & Ohio EPA October 1993
- Received U.S. EPA Approval November 1993
- Resubmitted RAWP/CPID to Ohio EPA February 1994



REMOVAL ACTION #29 STABILIZATION OF PADDYS RUN BANK NEAR THE INACTIVE FLYASH PILE

000055



- OBJECTIVE:**
- Stabilize East Bank of Paddys Run Adjacent to Inactive Flyash Pile

- BENEFIT:**
- Prevent Potential Discharge of Flyash to Paddys Run

- ACTIVITIES:**
- First Phase of Removal Action was to Construct a Rock Berm as an Interim Protective Measure
 - Second Phase of Removal Action was Detailed Engineering Evaluation Followed by Construction to Increase Berm Height and Improve Long-Term Protection

SCHEDULE:

- Interim Protective Measure Completed May 1993
- Final Protective Measure Completed September 1993
- Ongoing Maintenance Required

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1994 COMMUNITY ASSESSMENT 5672

The Department of Energy (DOE) is revising the Fernald Environmental Management Project *Community Relations Plan* to include post-Record of Decision public involvement activities. As part of this project, DOE is conducting an extensive assessment of current public concerns and the effectiveness of its community relations program to address those concerns.

In early May, 50 community leaders, including local residents, members of FRESH and the Fernald Citizens Task Force, civic leaders, business leaders, local, state and federal officials, participated in personal interviews with Fernald staff. Additionally, 365 random telephone interviews of residents within a 20-mile radius of the Fernald site were conducted.

Participants were asked their opinions on what the priority of the site should be; their desired level of involvement in the decision-making process; how they would like to be informed of or involved in Fernald activities; the performance of agencies/organizations involved in the cleanup of Fernald; future use options; and several other questions relating to the communications program and cleanup progress at Fernald.

Following the community assessment, representatives from DOE, U.S. Environmental Protection Agency (EPA), Ohio EPA and FERMO met to begin analyzing community issues and concerns raised during the assessment. New and revised public involvement activities to address the issues and concerns were also discussed.

Because employees are a key stakeholder group at Fernald, an internal communications audit will also be conducted in June. Like the community assessment, this analysis will focus on how employees receive information and their perceptions of progress in critical areas such as safety, job security, and employee involvement. The internal audit process will include a mailed questionnaire to all employees and some focus group discussions.

Feedback from the community assessment interviews and the communications audit will be used to benchmark Fernald's effectiveness in delivering messages to employees and the community and to determine new or better approaches for informing and involving the public.

During 1994, two operable units are scheduled to initiate Remedial Design/Remedial Action phase activities. The existing *Community Relations Plan* only details activities associated with the Remedial Investigation/Feasibility Study phase of the remedial process. EPA guidance, *Community Relations in Superfund Handbook*, recommends revision of the *Community Relations Plan* following the signing of a Record of Decision and prior to the start of the Remedial Design phase. The revised *Community Relations Plan* will be completed in September 1994.

Chronology of Fernald's Community Assessments

The first community assessment for Fernald was conducted in 1986, when the original *Community Relations Plan* was developed. In 1988, minor revisions were made to the *Community Relations Plan*, as reflected in the RI/FS Work Plan, Volume III. In 1989, a second community assessment was conducted, and the *Community Relations Plan* was again revised and approved in August 1990. In 1992, the *Community Relations Plan* was revised a fourth time; however, no community assessment was conducted. The 1994 community assessment is the first assessment conducted since Fernald's mission changed from production to environmental remediation.

UPCOMING PUBLIC PARTICIPATION ACTIVITIES

DATE/TIME	EVENT	PLACE	TOPIC
Second and fourth Monday each month 7:30 p.m.	Crosby Township Meeting	Crosby Township Civic Center	Fernald status report and updates given at each meeting.
First and third Thursday each month 7:00 p.m.	Ross Township Meeting	Ross Fire House	Fernald status report and updates given at each meeting.
First and third Monday each month 7:30 p.m.	Morgan Township Meeting	Morgan Township Civic Center	Fernald status report and updates given at each meeting.
Fourth Thursday each month 7:30 p.m.	FRESH Meeting	Venice Presbyterian Church	Fernald status report and updates given at each meeting.
June 14, 1994 6:00 - 9:30 p.m.	DOE Community Meeting	The Plantation Harrison, Ohio	Fernald Cleanup Status and Break-out Sessions
No July/August Meetings. Next Mtg. September 10, 1994 8:30 a.m. - Noon	Fernald Citizens Task Force Monthly Meetings	AmeriSuites Forest Park	Open to public. Topics include waste disposal and future land use.
June 28, 1994 7:00 - 9:00 p.m.	Operable Unit 2 Workshop on Feasibility Study Report	Alpha Building Ross, Ohio	Discussion on the various alternatives under consideration for OU2.
August 23, 1994 (tentative) 7:00 - 9:00 p.m.	Workshop on Transportation Issues	TBD	Transportation/Shipping of remediation waste to off- site locations.

DOE COMMUNITY MEETING EVALUATION
June 14, 1994

1. Have you attended Fernald community meetings before?

- Yes
- No

If yes, about how many? _____

2. Where did you learn about tonight's meeting? (check however many apply)

- Newspaper ad _____ (which newspaper?)
- Newspaper story _____ (which newspaper?)
- Radio/television public service announcement
- Flyer
- Word of mouth

3. Are you a (check however many apply)?

- Fernald area resident
- DOE employee
- FERMC0 employee
- Subcontractor employee
- Government official
- Representative of a regulatory agency
- Representative of another group/organization
- Other _____ (please specify)

4. On a scale of 1-7, how valuable do you feel were the presentations?

Not very valuable Somewhat valuable Very valuable

1 2 3 4 5 6 7

5. On a scale of 1-7, how valuable do you feel were the break-out sessions?

Not very valuable Somewhat valuable Very valuable

1 2 3 4 5 6 7

6. Comparing tonight's meeting to others you have attended, do you feel adequate time was allowed for the question and answer session?

- Yes
- No
- Don't Know

7. On a scale of 1-7, how would you rate the information presented on the exhibits?

Not very valuable	Somewhat valuable	Very valuable				
1	2	3	4	5	6	7

8. Which exhibits did you find the most useful and informative, if any?

9. Which exhibits did you find least useful and informative, if any?

10. On a scale of 1-7, how would you rate the information presented in the written hand-outs?

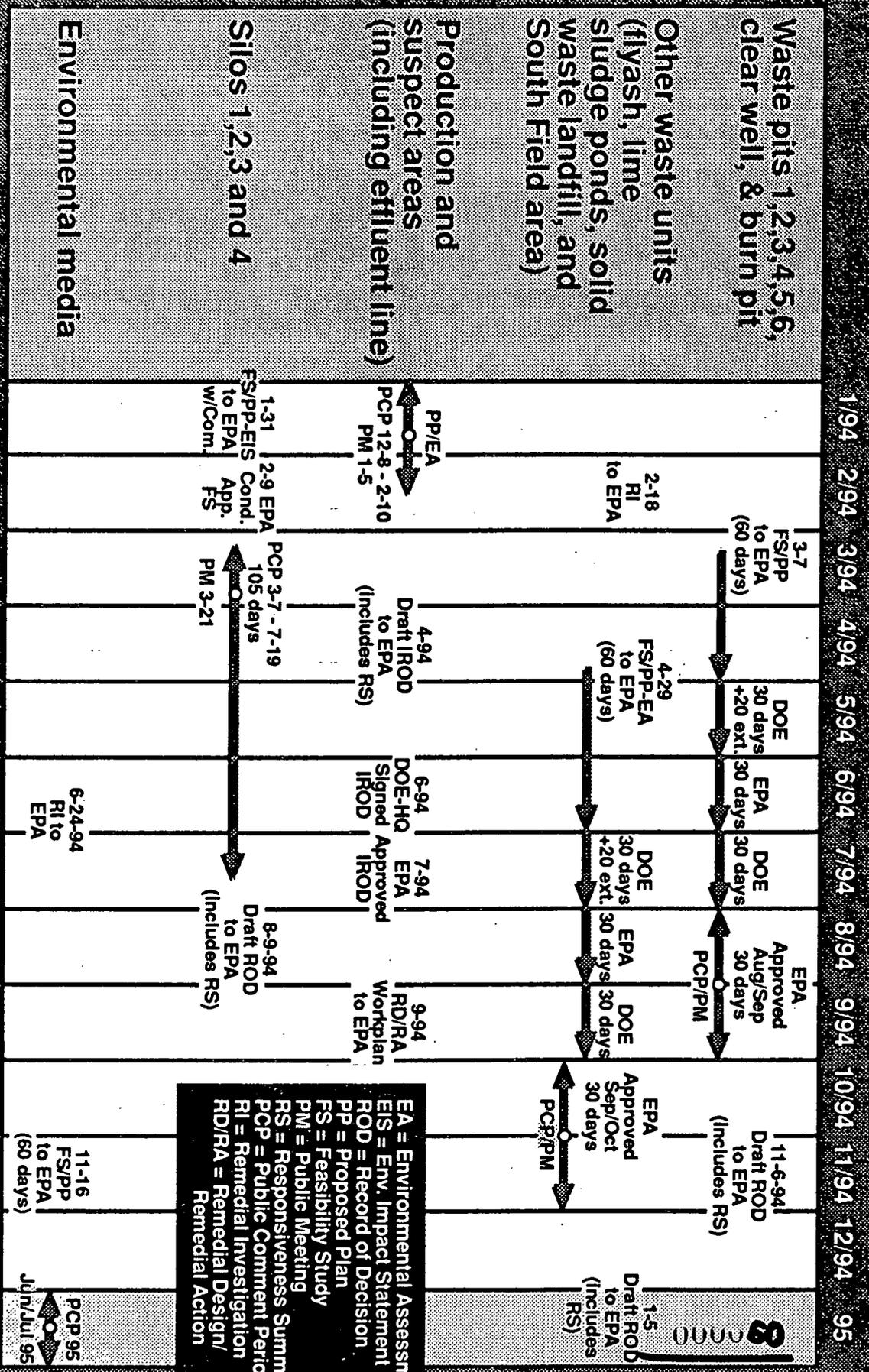
Not very valuable	Somewhat valuable	Very valuable				
1	2	3	4	5	6	7

11. On a scale of 1-7, how would you rate the meeting overall?

Not very valuable	Somewhat valuable	Very valuable				
1	2	3	4	5	6	7

Thank you for completing this evaluation. Please write down any other comments you would like to make about tonight's meeting or how we can improve future Community Meetings.

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT 1994 SCHEDULE OF FS, PROPOSED PLAN, & PUBLIC COMMENT ACTIVITIES



EA = Environmental Assessment
EIS = Env. Impact Statement
ROD = Record of Decision
PP = Proposed Plan
FS = Feasibility Study
PM = Public Meeting
RS = Responsiveness Summary
PCP = Public Comment Period
RI = Remedial Investigation
RD/RA = Remedial Design/Remedial Action

11-16
 FS/PP
 to EPA
 (60 days)
 PCP 95
 Juh/Jul 95