

Fluor Fernald, Inc.
P.O. Box 538704
Cincinnati, OH 45253-8704

(513) 648-3000

FLUOR

Fernald Closure Project
Letter No. C:CPD:2004-0125

12/28/04

Mr. William J. Taylor, Director
U. S. Department of Energy
Ohio Field Office - Fernald Closure Project
175 Tri-County Parkway
Cincinnati, Ohio 45246

Dear Mr. Taylor:

**CONTRACT DE-AC24-01OH20115, FISCAL YEAR 2004 EXECUTIVE ORDER 13148
POLLUTION PREVENTION PERFORMANCE REPORT**

Enclosed, for your records, is a copy of the Fiscal Year (FY) 2004 Executive Order (E.O.) 13148 Pollution Prevention Performance Report. This report was submitted electronically to the U.S. Department of Energy's Pollution Prevention web site on December 2, 2004.

If you have any questions, please contact Betsy Brucken at (513) 648-5254.

Sincerely,

Jamie Jameson
Closure Project Director

JJ:EAB:jmb
Enclosure

c: Electronic Copy with Enclosure
Terri L. Binau, DOE Contracting Officer, DOE-OH
Elizabeth A. Brucken, MS52-3
Ralph E. Holland, DOE Contracting Officer, DOE-OH/FCP
David L. Jackson, MS77
Kimberly Johnson, DOE-OH/FCP
Dennis Sizemore, Fluor Fernald, Inc. Prime Contract, MS2
Edward P. Skintik, DOE-OH/FCP
Administrative Record, MS78
FE-BTAS - DOE Records Center

Hard Copy with Enclosure
DOE Records Center
File Record Subject: Pollution Prevention Performance Report

Standard Data Report

2004 Annual Report on Waste Generation and Pollution Prevention Progress as required by DOE Order 450.1

Fernald Environmental Management Project

Operations Office: OH

Prepared for: DOE

Prepared by: Betsy Brucken

12/6/2004

Standard Data Report

54-Fernald Environmental Management Project

General Site Information

Site Information:

Site Name: 54-Fernald Environmental Management Project

Internet Email Address:

Operations Office Name: OH

Lead PSO: EM

DOE Point of Contact Information:

DOE Point of Contact: Ed Skintik

DOE Phone #: (513) 246-1369

DOE Fax #: (513) 246-0225

DOE Employee address: 175 Tri-County Parkway Cincinnati, Ohio 45246

Contractor Point of Contact Information:

Contractor Point of Contact: Betsy Brucken

Contractor Phone #: (513) 648-5254

Contractor Fax #: (513) 648-4925

Contractor Address: P.O. Box 538704 MS 52-3 Cincinnati, Ohio 45253

Standard Data Report

54-Fernald Environmental Management Project

Site-Wide Recycling Activities

Recycle Category	Qty	
Paper Products:		
Office and Mixed Paper	0.00	mt
Corrugated cardboard	56.60	mt
Phone Books	0.00	mt
Newspapers/Magazines	0.00	mt
Scrap Metals:		
Stainless steel	0.00	mt
Copper	0.00	mt
Iron/Steel	0.00	mt
Aluminum	0.00	mt
Aluminum Cans	0.00	mt
Lead	0.00	mt
Zinc	0.00	mt
Other: (see discussion below)	349.25	mt
Precious metals:		
Silver	0.00	mt
Gold	0.00	mt
Platinum	0.00	mt
Other: (see discussion below)	0.00	mt
Other Items		
Antifreeze	0.00	mt
Engine oils	21.44	mt
Toner cartridges	0.17	mt
Batteries	19.38	mt
Tires	1.60	mt
Food waste	0.00	mt
Concrete/Asphalt	0.00	mt
Fluorescent Bulbs	0.00	mt
Ballasts	0.32	mt
Glass	0.00	mt
Plastic	0.00	mt
Styrofoam	0.00	mt

Transformers	0.00	mt
Wood (chips, compost)	0.00	mt
*Computers/Electronics	0.00	mt
*Other: (see discussion below)	0.00	mt

* Optional Reporting

Explanation of "Other" recycling amounts:

Explanation for other amounts: Other (mixed metals)

Sanitary Waste

Routine		Cleanup/Stabilization	
0.00	mt	6,671.44	mt

Standard Data Report

54-Fernald Environmental Management Project

Total Site Generation - Routine vs. Cleanup/Stabilization Waste

Waste Type	Routine Waste	Unit	Cleanup/Stabilization Waste	Unit	Total Waste	Unit
High Level Waste (Liquid)	0.00	m3	0.00	m3	0.00	m3
High Level Waste (Solid)	0.00	m3	0.00	m3	0.00	m3
Transuranic Waste (Liquid)	0.00	m3	0.00	m3	0.00	m3
Transuranic Waste (Solid)	0.00	m3	0.00	m3	0.00	m3
Mixed Transuranic Waste (Liquid)	0.00	m3	0.00	m3	0.00	m3
Mixed Transuranic Waste (Solid)	0.00	m3	0.00	m3	0.00	m3
Low Level Waste (Liquid)	0.00	m3	21.40	m3	21.40	m3
Low Level Waste (Solid)	0.00	m3	857,419.60	m3	857,419.60	m3
Mixed Low Level Waste (Liquid)	0.00	m3	9.60	m3	9.60	m3
Mixed Low Level Waste (Solid)	0.00	m3	1,154.30	m3	1,154.30	m3
RCRA Regulated	0.00	mt	0.00	mt	0.00	mt
State Regulated	0.00	mt	0.00	mt	0.00	mt
TSCA Regulated	0.00	mt	0.00	mt	0.00	mt
Mixed TSCA	0.00	mt	0.00	mt	0.00	mt

Standard Data Report

54-Fernald Environmental Management Project

Site Waste Generation by PSO

PSO: EM

Waste Type	Routine Waste	Unit	Cleanup/Stabilization Waste	Unit	Total Waste	Unit
High Level Waste (Liquid)	0.00	m3	0.00	m3	0.00	m3
High Level Waste (Solid)	0.00	m3	0.00	m3	0.00	m3
Transuranic Waste (Liquid)	0.00	m3	0.00	m3	0.00	m3
Transuranic Waste (Solid)	0.00	m3	0.00	m3	0.00	m3
Mixed Transuranic Waste (Liquid)	0.00	m3	0.00	m3	0.00	m3
Mixed Transuranic Waste (Solid)	0.00	m3	0.00	m3	0.00	m3
Low Level Waste (Liquid)	0.00	m3	21.40	m3	21.40	m3
Low Level Waste (Solid)	0.00	m3	857,419.60	m3	857,419.60	m3
Mixed Low Level Waste (Liquid)	0.00	m3	9.60	m3	9.60	m3
Mixed Low Level Waste (Solid)	0.00	m3	1,154.30	m3	1,154.30	m3
RCRA Regulated	0.00	mt	0.00	mt	0.00	mt
State Regulated	0.00	mt	0.00	mt	0.00	mt
TSCA Regulated	0.00	mt	0.00	mt	0.00	mt
Mixed TSCA	0.00	mt	0.00	mt	0.00	mt

Standard Data Report

54-Fernald Environmental Management Project

Explanation for differences (increase/decrease) in waste generation amounts reported for the year 2004 which differ from 2003 reported amounts by more than 20 percent.

Waste type: Routine - Low Level Waste

PSO: EM

Reported in 2003: 467.61 m3

Reported in 2004: 0 m3

Explanation for the difference:

After the FY2003 Report was submitted, clarification was received that all wastes from remediation sites should be reported as clean/up stabilization wastes. As a result, all wastes from Fernald are reported as cleanup/stabilization wastes for FY2004.

Waste type: Cleanup/Stabilization - Low Level Waste

PSO: EM

Reported in 2003: 644131.1 m3

Reported in 2004: 857441 m3

Explanation for the difference:

The difference is due to accelerated remediation schedules to meet closure requirements. In addition, clarification was received after submittal of the FY2003 Report that all wastes from remediation sites should be reported as cleanup/stabilization wastes. Wastes that were reported as routinely-generated waste for FY2003 are now included among the volumes reported for cleanup/stabilization waste for FY2004.

Waste type: Routine - Mixed Low Level Waste

PSO: EM

Reported in 2003: 3.6 m3

Reported in 2004: 0 m3

Explanation for the difference:

After the FY2003 Report was submitted, clarification was received that all wastes from remediation sites should be reported as clean/up stabilization wastes. As a result, all wastes from Fernald are reported as cleanup/stabilization wastes for FY2004.

Waste type: Cleanup/Stabilization - Mixed Low Level Waste

PSO: EM

Reported in 2003: 10.21 m3

Reported in 2004: 1163.9 m3

Explanation for the difference:

The difference is due to accelerated remediation schedules to meet closure requirements. In addition,

clarification was received after submittal of the FY2003 Report that all wastes from remediation sites should be reported as cleanup/stabilization wastes. Wastes that were reported as routinely-generated waste for FY2003 are now included among the volumes reported for cleanup/stabilization waste for FY2004.

Waste type: Cleanup/Stabilization - RCRA Waste

PSO: EM

Reported in 2003: 5.77 mt

Reported in 2004: 0 mt

Explanation for the difference:

difference is due to accelerated schedule to meet closure requirements. As operations are discontinued to meet closure, less RCRA waste is being generated.

Waste type: Cleanup/Stabilization - Mixed TSCA Waste

PSO: EM

Reported in 2003: 0.2 mt

Reported in 2004: 0 mt

Explanation for the difference:

The difference is due to accelerated schedule to meet closure requirements. As operations are discontinued to meet closure, less mixed TSCA waste is being generated.

Waste type: Cleanup/Stabilization - Sanitary Waste

Reported in 2003: 0 mt

Reported in 2004: 6671.44 mt

Explanation for the difference:

The difference is due to accelerated remediation schedules to meet closure requirements. In addition, Fernald began reporting all wastes generated at the site as cleanup/stabilization wastes in FY2004. A portion of this volume had been reported as routinely-generated wastes in the FY2003 report.

Waste type: Routine - Sanitary Waste

Reported in 2003: 20360 mt

Reported in 2004: 0 mt

Explanation for the difference:

After the FY2003 report was submitted, clarification was received that all wastes from remediation site should be reported as cleanup/stabilization wastes. As a result, no routine wastes were reported as being generated at Fernald in FY2004.

Accomplishments Report

Please Note: Only Accomplishments designated as FINAL will appear on this report !

Displaying sites: Fernald Environmental Management Project for calendar year 2004 for the Full Year

Fernald Environmental Management Project/ID#: OH-04-003

Accomplishment Name: Silo 4 Metal Recycling

P2 Activity:	Source Reduction	One-time or Ongoing?	N
Waste type:	LLW	Project Life (in years)	1
Routine/Cleanup:	Cleanup/Stabilization	Approved by QAC?	No
Implementing PSO	EM	Approver User ID	
Benefitting PSO	EM		

Accomplishment Description: Prior to demolition, the Fernald Silo 4 structure was evaluated to have never been subject to radiological contamination since the structure was never used. The rad control area was rolled back and the materials, including metals, within the structure were released for non-rad disposal or recycle.

Life-Cycle Cost Worksheet (See P2 Data Call Guidance)

**For calculating P2 Accomplishment Savings/Avoidance Reported in P2 Accomplishment Data Entry*

	Costs (\$000's)		
	Baseline	Accomplishment	
Life Cycle Cost Factors			
Implementation Factors (a)			
Research, Develop, and Demos	\$0	\$0	
Preconcept, Design/Eng. Studies	\$0	\$0	
Env., Safety and Health Activities (b)	\$0	\$0	
Detailed Design (c)	\$0	\$0	
Equipment and Construction (c)	\$0	\$0	
Procedures, Startup & Commissioning (d)	\$0	\$0	
Total Implementation Factors	\$0	\$0	
Ops and Maintenance Factors			
Impacts to Products and By-products(e)	\$0	\$0	
Impacts to Other Operations (f)	\$0	\$0	

Ops and Maint. (O&M) Labor	\$0	\$0	
O&M Materials and Utilities (g)	\$0	\$0	
Laboratory Analysis	\$0	\$0	
Secondary Waste Treat./Stor./Disp. (j)	\$0	\$0	
Total Ops and Maintenance Factors	\$0	\$0	
Indirect & Project Closure Factors			
Orphan Waste/Facility Maintenance (j)	\$0	\$0	
Decontamination & Decommissioning	\$0	\$0	
Salvage, Dispositioning, & Closure	\$23.3	\$0	605 yd3 of structure release and recycle
Risk Impacts (k)	\$0	\$0	
Other Cost Impacts	\$0	\$0	
Total Indirect & Project Closure Factors	\$23.3	\$0	
Total for Net Savings Computation	\$23.3	\$0	\$23.3K - NET SA

Fernald Environmental Management Project/ID#: OH-04-004

Accomplishment Name: East Trailer Complex

P2 Activity:	Recycle/Reuse	One-time or Ongoing?	N
Waste type:	SAN	Project Life (in years)	1
Routine/Cleanup:	Cleanup/Stabilization	Approved by QAC?	No
Implementing PSO	EM	Approver User ID	
Benefitting PSO	EM		

Accomplishment Description: Fernald free-released the East Trailer Complex to local landfill for disposal and recycling instead of on-site disposal as LLW which contributes to less volume necessary for on-site disposal. This will help avoid the necessity for building an additional OSDF cell, avoiding a prorated cost of \$10M.

Life-Cycle Cost Worksheet (See P2 Data Call Guidance)

*For calculating P2 Accomplishment Savings/Avoidance Reported in P2 Accomplishment Data Entry

Life Cycle Cost Factors	Costs (\$000's)		Explor
	Baseline	Accomplishment	
Implementation Factors (a)			

Research, Develop, and Demos	\$0	\$0	
Preconcept, Design/Eng. Studies	\$0	\$0	
Env., Safety and Health Activities (b)	\$0	\$0	
Detailed Design (c)	\$0	\$0	
Equipment and Construction (c)	\$0	\$0	
Procedures, Startup & Commissioning (d)	\$0	\$0	
Total Implementation Factors	\$0	\$0	
Ops and Maintenance Factors			
Impacts to Products and By-products(e)	\$0	\$0	
Impacts to Other Operations (f)	\$0	\$0	
Ops and Maint. (O&M) Labor	\$0	\$0	
O&M Materials and Utilities (g)	\$0	\$0	
Laboratory Analysis	\$0	\$0	
Secondary Waste Treat./Stor./Disp. (j)	\$0	\$0	
Total Ops and Maintenance Factors	\$0	\$0	
Indirect & Project Closure Factors			
Orphan Waste/Facility Maintenance (j)	\$0	\$0	
Decontamination & Decommissioning	\$0	\$0	
Salvage, Dispositioning, & Closure	\$20.8	\$0	312,00 lbs. of misc relax and recycle :
Risk Impacts (k)	\$0	\$0	
Other Cost Impacts	\$0	\$0	
Total Indirect & Project Closure Factors	\$20.8	\$0	
Total for Net Savings Computation	\$20.8	\$0	\$20.8K - NET SA

Fernald Environmental Management Project/ID#: OH-04-005

Accomplishment Name: Reuse of Five-plex Trailers

P2 Activity:	Recycle/Reuse	One-time or Ongoing?	N
Waste type:	SAN	Project Life (in years)	1
Routine/Cleanup:	Cleanup/Stabilization	Approved by QAC?	No
Implementing PSO	EM	Approver User ID	
Benefitting PSO	EM		

Accomplishment Description: Fernald released a five-plex trailer to the University of Kentucky to dismantle, move, and rebuild on campus, at no cost to DOE, instead of landfill disposal

Life-Cycle Cost Worksheet
(See P2 Data Call Guidance)

**For calculating P2 Accomplishment Savings/Avoidance Reported in P2 Accomplishment Data Entry*

Life Cycle Cost Factors	Costs (\$000's)		Explar
	Baseline	Accomplishment	
Implementation Factors (a)			
Research, Develop, and Demos	\$0	\$0	
Preconcept, Design/Eng. Studies	\$0	\$0	
Env., Safety and Health Activities (b)	\$0	\$0	
Detailed Design (c)	\$0	\$0	
Equipment and Construction (c)	\$0	\$0	
Procedures, Startup & Commissioning (d)	\$0	\$0	
Total Implementation Factors	\$0	\$0	
Ops and Maintenance Factors			
Impacts to Products and By-products(e)	\$0	\$0	
Impacts to Other Operations (f)	\$0	\$0	
Ops and Maint. (O&M) Labor	\$0	\$0	
O&M Materials and Utilities (g)	\$0	\$0	
Laboratory Analysis	\$0	\$0	
Secondary Waste Treat./Stor./Disp. (j)	\$0	\$0	
Total Ops and Maintenance Factors	\$0	\$0	
Indirect & Project Closure Factors			
Orphan Waste/Facility Maintenance (j)	\$0	\$0	
Decontamination & Decommissioning	\$0	\$0	
Salvage, Dispositioning, & Closure	\$6	\$0	trailer - 50 tons; \$1
Risk Impacts (k)	\$0	\$0	
Other Cost Impacts	\$0	\$0	
Total Indirect & Project Closure Factors	\$6	\$0	
Total for Net Savings Computation	\$6	\$0	\$6K - NET SAVI

Fernald Environmental Management Project/ID#: OH-04-006

Accomplishment Name: Downsized Advanced Wastewater Treatmt (AWWT) facil

P2 Activity: Segregation **One-time or Ongoing?** Y
Waste type: LLW **Project Life (in years)** 1
Routine/Cleanup: Cleanup/Stabilization **Approved by QAC?** No
Implementing PSO EM **Approver User ID**
Benefitting PSO EM

Accomplishment Description: With EM-23 support, Fernald created a downsized design for the existing AWWT facility, allowing 90% to be dismantled per the site closure schedule and put in the On-Site Disposal Facility, while satisfying regulatory and public concerns for post-closure groundwater and surface water treatment. AWWT waste was planned for off-site LLW disposal in 2015.

Life-Cycle Cost Worksheet
 (See P2 Data Call Guidance)

**For calculating P2 Accomplishment Savings/Avoidance Reported in P2 Accomplishment Data Entry*

Life Cycle Cost Factors	Costs (\$000's)		Explor
	Baseline	Accomplishment	
Implementation Factors (a)			
Research, Develop, and Demos	\$0	\$0	
Preconcept, Design/Eng. Studies	\$0	\$350	EM-23 sponsored
Env., Safety and Health Activities (b)	\$0	\$0	
Detailed Design (c)	\$0	\$0	
Equipment and Construction (c)	\$0	\$0	
Procedures, Startup & Commissioning (d)	\$0	\$0	
Total Implementation Factors	\$0	\$350	
Ops and Maintenance Factors			
Impacts to Products and By-products(e)	\$0	\$0	
Impacts to Other Operations (f)	\$0	\$0	
Ops and Maint. (O&M) Labor	\$0	\$0	
O&M Materials and Utilities (g)	\$0	\$0	
Laboratory Analysis	\$0	\$0	
Secondary Waste Treat./Stor./Disp. (j)	\$0	\$0	
Total Ops and Maintenance Factors	\$0	\$0	
Indirect & Project Closure Factors			
Orphan Waste/Facility Maintenance (j)	\$20665	\$2951	Transportation & c continued availabil (\$38.57/yd3); calc

Decontamination & Decommissioning	\$0	\$0	Assumed soil and c
Salvage, Dispositioning, & Closure	\$0	\$0	
Risk Impacts (k)	\$0	\$0	
Other Cost Impacts	\$0	\$0	
Total Indirect & Project Closure Factors	\$20665	\$2951	
Total for Net Savings Computation	\$20665	\$3301	\$17364K - NET S