



Department of Energy  
Ohio Field Office  
Fernald Environmental Management Project  
P. O. Box 538705  
Cincinnati, Ohio 45253-8705  
(513) 648-3155



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FEB 12 2003

Mr. Christopher Jones, Director  
Ohio Environmental Protection Agency  
Lazarus Government Center  
122 South Front Street  
Columbus, Ohio 43215

DOE-0206-03

Dear Mr. Jones:

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) ANNUAL TREATABILITY  
STUDY REPORT – FERNALD CLOSURE PROJECT**

Pursuant to Ohio Administrative Code (OAC) 3745-51-04(F)(9), enclosed is a report describing the Fernald Closure Project's (FCP) treatability study activities for Calendar Year 2002. This letter also serves as notification that the FCP is no longer planning to conduct any hazardous waste treatability studies on-site in accordance with OAC 3745-51-04(F)(11).

If you have any questions regarding this information, please contact Ed Skintik at (513) 648-3151.

Sincerely,

Johnny Reising  
Fernald Remedial Action Project Manager

Enclosures: As Stated

cc: w/enclosures  
E. Skintik, DOE-FCP, MS45  
A. Meyer, Fluor Fernald, Inc., MS90  
T. Poff, Fluor Fernald, Inc., MS65-2  
RCRA Operating Record, Fluor Fernald, Inc., MS65-2

## ENCLOSURE

## CALENDAR YEAR 2002 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) TREATABILITY STUDY REPORT FOR THE FERNALD CLOSURE PROJECT (FCP)

This report summarizes the information required to be reported under OAC 3745-51-04(F)(9) for treatability studies conducted at the FCP in CY 2002. Each required item and the corresponding response is provided below.

## I. TREATABILITY STUDIES CONDUCTED DURING CY 2002

1. The name, address and U.S. EPA identification number of the facility conducting the treatability studies:

The FCP completed one treatability study involving hazardous waste in CY 2002. This study was initiated on 11/06/01 and was performed on-site at the following address:

Fernald Closure Project  
7400 Willey Road  
Hamilton, Ohio 45013-9402

The U. S. EPA identification number for the FCP is OH6890008976.

2. The types (by process) of treatability studies conducted:

The treatability study involved the use of Gubka blocks to stabilize mixed radioactive laboratory standards (characterized as D002). The blocks are comprised of glass microspheres formed with a silicate binder and have a high surface area. The block has a density of less than 1 g/cm<sup>3</sup> and is placed on the surface of an open container of the radioactive solution. The Gubka block floats and behaves similar to a wick, pulling the liquid into the interstitial voids via capillary action. The radioactive standard evaporates, leaving the radio-metal and salts deposited in the pores of the Gubka.

In CY 2002, this technology was used to treat laboratory standards comprised of Barium-133, Cesium-137, Americium-241, Americium-243, Thorium-229, Strontium-90, Radium-226, Ruthenium-106, Polonium-210, Plutonium-238, Plutonium-239 and Neptunium-237.

3. The names and addresses of persons for whom studies have been conducted.

The treatability study was conducted to treat laboratory standards generated at the FCP. See #1 above for additional information.

4. The total quantity of waste in storage each day.

DATES	TREATABILITY STUDY PHASE	VOLUME OF WASTE IN STORAGE (LITERS)
1/01/02	Batch 3 is in process (begun on 12/18/01). This Batch contains 1.3 liters of Barium-133 and Cesium-137 laboratory standards.	16.6
4/25/02	Completion of Batch 3	15.3
5/09/02	Completion of Batch 4 (1.0 liters of Cesium-137 laboratory standard)	14.3
8/06/02	Completion of Batch 5 (4.1 liters of Barium-133 and Cesium-137 laboratory standards)	10.2
8/14/02	Completion of Batch 6 (4.3 liters of Americium-241, Americium-243, Thorium-229, Strontium-90, Radium-226, Ruthenium-106, and Polonium-210 laboratory standards)	5.9
8/27/02	Completion of Batch 7 (5.9 liters of Plutonium-238, Plutonium-239 and Neptunium-237 laboratory standards).	0

5. The quantity and types of waste subjected to treatability studies:

In CY 2002, the FCP completed treatment of 16.6 liters of Barium-133, Cesium-137, Americium-241, Americium-243, Thorium-229, Strontium-90, Radium-226, Ruthenium-106, Polonium-210, Plutonium-238, Plutonium-239 and Neptunium-237 laboratory standards. These standards were preserved with nitric or hydrochloric acid and were characterized as D002.

6. When each treatability study was conducted:

The Gubka treatability study was initiated on 11/06/01 and was completed on 8/27/02.

7. The final disposition of residues and unused sample from each treatability study:

The loaded Gubka blocks will be shipped to the Nevada Test Site in Mercury, Nevada for disposition as low-level waste. No unused samples have been generated from this treatability study.

## II. FUTURE TREATABILITY STUDY ACTIVITIES

In accordance with OAC 3745-51-04(F)(11), the FCP is no longer planning to conduct any hazardous waste treatability studies on-site.