

United States Government

Department of Energy

# memorandum

DATE: October 16, 2003

REPLY TO

ATTN TO: IG-36 (A03OR013)

Audit Report No.: OAS-L-04-02

SUBJECT: Waste Pits and Silos Remediation at the Fernald Closure Project

TO: Robert Warther, Manager, Ohio Field Office



## INTRODUCTION AND OBJECTIVE

In November 2000, the Ohio Field Office awarded a contract to Fluor Fernald Inc., (Fluor) to complete the cleanup and closure of the Fernald Closure Project, located near Cincinnati, Ohio, by 2010. The Ohio Field Office modified the contract in March 2003 to require that site closure activities be completed in 2006, and directed Fluor to develop a revised baseline for accelerating all remaining cleanup activities.

Two of the largest and most difficult cleanup projects at the site are the Waste Pits and Silos Projects. The Waste Pits Project involves the excavation and disposal of waste from six pits ranging in size from a baseball diamond to a football field, and up to 30 feet deep. These pits contain about one million tons of low-level radioactive waste generated by past uranium and thorium processing activities. The excavated waste will be shipped to a commercial facility in Utah for disposal. The Silos Project involves the disposal of waste from, and demolition of, four concrete storage tanks constructed in the 1950s. Three of the silos contain a total of about 14,000 cubic yards of low-level waste, and the fourth is empty. The Department currently plans to stabilize and treat the silos waste prior to disposal at the Nevada Test Site or a commercial facility.

The objective of the audit was to determine whether the Waste Pits and Silos Projects were on schedule to be completed in 2006.

## CONCLUSIONS AND OBSERVATIONS

The projects appear to be on schedule for completion prior to the 2006 contract deadline. As of July 2003, the Department had disposed of about 570,000 tons of waste from the pits, and is on schedule to complete the Waste Pits Project in 2004. The Silos Project also appears to be on track for completion in 2006, even though a dispute between Fluor and one of its subcontractors has delayed cleanup activities and increased the estimated cost of removing the waste from silos 1 and 2 by over \$30 million.

Although the projects appear to be on schedule, the Office of Inspector General is concerned that the Ohio Field Office could reimburse Fluor for legal costs incurred with the termination of a subcontract involving the cleanup of silos 1 and 2. The subcontractor is pursuing a termination claim for its subcontract to design, build, and operate an accelerated waste retrieval

and radon control system. To date, Fluor has incurred about \$1.2 million in legal costs to defend itself against the lawsuit. Since this dispute has not been settled, additional legal costs will probably be incurred.


In our opinion, if the Department reimburses Fluor for any legal costs or subcontract termination claims, these amounts should be included in Fluor's total project costs for fee determination purposes. We recognize that the Department gave advance approval for Fluor's decisions to negotiate a settlement with the subcontractor and retain outside legal counsel to defend itself in the subsequent litigation. However, the Department had previously notified Fluor that it would be held accountable for completing the Silos Project on time and within budget.

### SCOPE AND METHODOLOGY

The audit was performed from April 28 through August 29, 2003 at the Fernald Closure Project near Cincinnati, Ohio. The scope of the audit was limited to costs and activities related to the Waste Pits and Silos Projects from Fiscal Years 1999 through 2003.

The audit was performed in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Accordingly, we assessed the significant internal controls related to the Waste Pits and Silos Projects. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We did not assess the reliability of computer processed data because only a limited amount of computer processed data was used during the audit. Finally, we assessed the Department's compliance with the Government Performance and Results Act of 1993, and found that specific performance targets had been established related to remediation projects.

We discussed the audit results with the Acting Director, Fernald Closure Project, on October 1, 2003. Since no formal recommendations are being made in this letter report, a formal response is not required. We appreciate the cooperation of your staff throughout the audit.

  
Terry L. Brendlinger, Director  
Environmental Audits Division  
Office of Inspector General

cc: Assistant Secretary for Environmental Management  
Team Leader, Audit Liaison Team, ME-2.1  
Audit Liaison, DOE-OH  
Audit Liaison, DOE-FCP

DOE F 1325.8  
(03-93)

United States Government

Department of Energy

# memorandum

DATE: October 16, 2003


REPLY TO  
ATTN OF: IG-30 (A03OR013)

SUBJECT: Audit Report on "Waste Pits and Silos Remediation at the Fernald Closure Project"

TO: Team Leader, Audit Liaison Team, ME-2.1

Attached is the subject report. The report does not contain a finding or recommendations that need to be tracked in the Department's audit tracking system. Therefore, no Management Decision is required.

We appreciate your cooperation.

  
Jerry L. Brendlinger, Director  
Environmental Audits Division  
Office of Inspector General

Attachments

cc: Manager, Ohio Field Office  
Audit Liaison, Fernald Closure Project

DOE F 1325.6  
(08-93)

United States Government

Department of Energy

# memorandum

DATE: October 16, 2003

REPLY TO:  
ATTN OF: IG-36 (A03OR013)

SUBJECT: Audit Report on "Waste Pits and Silos Remediation at the Fernald Closure Project"

TO: Director for Performance Audits and Administration

Attached is the required final report package on the subject audit. The pertinent details are:

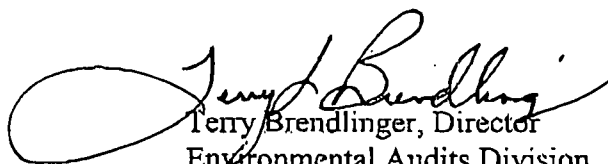
1. Staff days:	Programmed	<u>N/A</u>	Actual	<u>N/A</u>
Elapsed days:	Programmed	<u>162</u>	Actual	<u>171</u>

2. Names of OIG audit staff:

Assistant Director:	Fred Pieper
Team Leader:	Rick Buchanan
Auditor-in-Charge:	Steve Sommer
Audit Staff:	Amy Hayes

3. Coordination with Investigations and Inspections:

The draft report was sent to Walt Warren, Office of Investigations, and Henry Minner, Office of Inspections, on September 8, 2003. Their responses indicated that the report would not affect any ongoing investigations or inspections.

  
Terry Brendlinger, Director  
Environmental Audits Division  
Office of Inspector General

Attachments:

1. Final Report (2)
2. Monetary Impact Report
3. Audit Project Summary Report
4. Audit Database Information Sheet



**Audit Project Office Summary (APS)**

Report run on: October 16, 2003 4:27 PM

Audit#: A03OR013 Ofc: ORA Title: REMEDIATION OF WASTE SILOS & PITS AT THE FEMP

**\*\*\*\* Milestones \*\*\*\***

	Planned	End of Survey	Revised	Actual
Entrance Conference:.....	01-OCT-02		28-APR-03	28-APR-03
Survey:.....			05-SEP-03	05-SEP-03
Draft Report:.....				
Completed (With Report):..	30-SEP-03	05-SEP-03	07-OCT-03	16-OCT-03 ( R )
-----Elapsed Days:	364	130	162	171

Elap. Less Susp:

Date Suspended: Date Terminated:  
 Date Reactivated: Date Cancelled:  
 Days Suspended (Cur/Tot): ( ) Report Number: OAS-L-04-02  
 Report Type: LTR LETTER REPORT

Rpt Title: WASTE PITS AND SILOS REMEDIATION AT THE FERNALD CLOSURE PROJECT

**\*\*\*\* Audit Codes and Personnel \*\*\*\***

Class: PER PERFORMANCE  
 Program: EM Not Found  
 MgtChall: 009 CONTRACT/GRANT ADMIN  
 Site: SSA SINGLE-SITE AUDIT  
 SecMiss: ENV ENVIRONMENTAL QUALIT  
 PresInit: Not Found

AD: 496 PIEPER  
 AIC: 277 SOMMER  
 Team Ldr: 727 BUCHANAN  
 Tech Adv: 421 SCHULMAN

**\*\*\*\* Task Information \*\*\*\***

Task No:  
 Task Order Dt: CO Tech. Rep:  
 Orig Auth Hrs: Orig Auth Costs:  
 Current Auth: Current Auth Cost:  
 Tot Actl IPR Hr: Tot Actl Cost:

**\*\*\*\* Time Charges \*\*\*\***

Emp/Cont Name	Numdays	Last Date
ELLISON, F	0.1	09-AUG-03
SOLMONSON, D	1.4	20-SEP-03
BUCHANAN, P	23.4	04-OCT-03
HAYES, A	24.6	09-AUG-03
SOMMER, S	79.4	04-OCT-03
<b>Total:</b>	<b>128.9</b>	

Audit Project Office Summary (APS)

Report run on: October 16, 2003 4:27 PM

Audit History

Audit No: A03OR013

History Date: 16-OCT-03

History Text:

PB/ ENTERED COMPLETED WITH REPORT DATE.

**Audit No. A03OR013**

"Assessment of Changes to the Internal Control Structure and Their Impact on the Allowability of Costs Claimed by and Reimbursed to Bechtel Jacobs Company LLC Under Department of Energy Contract No. DE-AC05-98OR22700"

If your audit work or report deals with any of the following information, be sure to have your information reviewed by a classifier to ensure you are not inadvertently discussing Restricted Data or Formerly Restricted Data or any other level of classification. Information in the aggregate can be classified even if taken from unclassified sources.

<b>AIDS FOR REVIEW OF INFORMATION THAT MAY BE CLASSIFIED OR CONTROLLED</b>	<b>YES</b>	<b>NO</b>
Source or formula for Chemical/Biological Agents that has not been widely reported in open scientific literature.		X
Existence of a specific Chemical/Biological agent that is considered a threat to national security at a specified location within a government facility.		X
Statements that a specific Chemical/Biological agent considered a threat to national security cannot be detected by existing technology.		X
Information concerning significant technical advances and breakthroughs in Chemical/Biological agent detection, dissemination, or response technologies that could significantly assist an adversary.		X
Results or interpretation of research results from computer modeling that reveal specific operational deficiencies or vulnerabilities of a facility, infrastructure, or response plan which could be exploited or otherwise could materially aid an adversary in planning or conducting a Chemical/Biological attack.		X
Source term parameters (e.g. location, quantity, release rate, dispersal mechanisms, physical state, or particulate size distribution) of a Chemical/Biological agent <u>and</u> the airborne or surface concentrations resulting from dispersion modeling.		X
Specific dispersion mechanisms for specific chemical/Biological agents, including grinding techniques and pressurized systems that would be effective for dispersion over a large area.		X
Details of operational scenarios either for intelligence, civilian, or military organizations that would reveal current vulnerabilities or lessen the effectiveness of the scenarios.		X
Information about deployment of a specific detector or response system that could be used to defeat or significantly reduce the effectiveness of that system or otherwise materially aid an adversary in planning or conducting an attack.		X



Descriptions of specific vulnerabilities of decontamination equipment or procedures that could be exploited to prevent or significantly reduce their ability to perform required functions or otherwise materially aid an adversary in planning or conducting a Chemical/Biological attack.		X
Descriptions of specific conditions (e.g., carrier for an agent or environmental condition) that could be exploited to reduced the effectiveness of standard decontaminants or decontamination procedures such that risks to unprotected personnel cannot be reduced to acceptable levels, or otherwise would aid an adversary in planning a Chemical/Biological attack.		X
Nuclear weapon design, fabrication, and utilization.		X
Radiological warfare.		X
Radiological dispersal devices.		X
Inertial confinement fusion.		X
Military nuclear reactors (not necessary for civilian).		X

AUDIT DATABASE INFORMATION SHEET

1. Project Number: A03OR013
2. Title of Audit: Waste Pits and Silos Remediation at the Fernald Closure Project
3. Report Number and Date: ~~DBA~~ DAS-k-04-02 OCTOBER 16, 2003
4. Management Challenge Area: 009 – Contracts and Grants Management
5. Presidential Mgmt Initiative: N/A
6. Secretary Priority/Initiative: ENV – Environmental Management
7. Program Code: EM – Environmental Management
8. Location/Sites: Fernald Closure Project, near Cincinnati Ohio
9. Finding Summary:

The projects appear to be on schedule for completion prior to the 2006 contract deadline. As of July 2003, the Department had disposed of about 570,000 tons of waste from the pits, and is on schedule to complete the Waste Pits Project in 2004. The Silos Project also appears to be on track for completion in 2006, even though a dispute between Fluor and one of its subcontractors has delayed cleanup activities and increased the estimated cost of removing the waste from silos 1 and 2 by over \$30 million.

Although the projects appear to be on schedule, the Office of Inspector General is concerned that the Ohio Field Office could reimburse Fluor for legal costs incurred with the termination of a Fluor subcontract involving the cleanup of silos 1 and 2. The subcontractor is pursuing a termination claim for its subcontract to design, build, and operate an accelerated waste retrieval and radon control system. To date, Fluor has incurred about \$1.2 million in legal costs to defend itself against the lawsuit. Since this dispute has not been settled, additional legal costs will probably be incurred.

10. Keywords: Waste Pits  
Silos 1 and 2  
Silo 3  
Fernald Closure Project  
Site Closure  
Legal Costs  
Contract Termination  
Fluor Fernald, Inc.