

**I N S P E C T I O N
R E P O R T**

**I N S P E C T I O N O F T H E
M A N A G E M E N T O F P E R S O N A L
P R O P E R T Y A T T H E
A S H T A B U L A E N V I R O N M E N T A L
M A N A G E M E N T P R O J E C T**



U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF INSPECTIONS

NOVEMBER 2001

November 9, 2001

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman /s/
Inspector General

SUBJECT: INFORMATION: Report on "Inspection of the Management of Personal Property at the Ashtabula Environmental Management Project"

BACKGROUND

The Office of Inspector General (OIG), U.S. Department of Energy, conducted an inspection to review the management of accountable Government-owned personal property at the Department's Ashtabula Environmental Management Project (Ashtabula) in Ashtabula, Ohio. Earthline Technologies (Earthline), formerly RMI Environmental Services, is the Department's environmental restoration contractor at Ashtabula. Earthline is a division of RMI Titanium Company headquartered in Niles, Ohio.

The objective of this inspection was to determine if Ashtabula was properly managing Government-owned personal property in accordance with Departmental and other Federal property management requirements.

RESULTS OF INSPECTION

The OIG concluded that the Ashtabula site was not managing Government-owned personal property in accordance with Departmental and other Federal property management requirements. Specifically, Department officials allowed Earthline to stockpile Government-owned personal property without a valid Departmental need or mission requirement. Earthline's marketing brochure and its Department funded website advertised some of the Government-owned personal property for the commercial disposal of potentially contaminated waste, work which was outside the scope of the Department's cleanup contract. This was despite an April 2000 audit by the Department's Ohio Field Office which concluded Earthline was improperly using Government property for commercial use, and a June 2000 Contracting Officer letter directing Earthline not to engage in unauthorized use of Government property. Consequently, Government-owned personal property was not being managed in the best interests of the Department.

The attached report specifically discusses seven pieces of Government-owned personal property that were chosen to illustrate property management practices at Ashtabula. These pieces of equipment originally had an acquisition cost, when purchased by the Government, of over \$2.6 million. Once the equipment was transferred to Earthline, DOE spent over \$1.8 million for equipment upgrades. Additionally, DOE spent over \$250,000 on the transportation of this equipment to, and its storage at, Ashtabula. Much of this equipment sat idle once it was

obtained and retrofitted by Earthline. We urge the Manager, Ohio Field Office to: 1) evaluate the cost allocation system used by Earthline to capture the costs for equipment upgrades, transportation, and storage; 2) take corrective action regarding any deficiencies identified in the cost allocation system; and 3) recover any unallowable costs.

We also recommended that the Manager, Ohio Field Office: 1) conduct an evaluation to determine what personal property is required for mission accomplishment at Ashtabula and have those items not required processed through the Department's excess property system; and 2) direct the Department's Ashtabula Project Director to review all requests for personal property and ensure that the contractor has a valid requirement before approval. Additionally, the Project Director should require Earthline to perform life cycle cost analysis when costs are significant.

MANAGEMENT REACTION

The Manager, Ohio Field Office, concurred with the report's recommendations. The OIG considers management comments responsive to the recommendations.

Attachment

cc: Deputy Secretary
Under Secretary for Energy, Science and Environment
Assistant Secretary for Environmental Management
Director, Office of Management, Budget and Evaluation
Manager, Ohio Field Office

INSPECTION OF THE MANAGEMENT OF PERSONAL PROPERTY AT THE ASHTABULA ENVIRONMENTAL MANAGEMENT PROJECT

TABLE OF CONTENTS

OVERVIEW

Introduction and Objective..... 1

Observations and Conclusion..... 1

DETAILS OF FINDING

Improper Management of U.S. Government Property..... 3

 Waste Water Treatment Plant..... 3

 Portable Ash Block Processing Plant..... 4

 Soil Washing Pilot Plant..... 5

 Molten Salt Oxidation Unit..... 6

 Electro-thermal Processing System..... 7

 Four Sperry Filter Presses..... 8

 Micro-encapsulation System..... 9

Causes of Property Management Deficiencies 10

RECOMMENDATIONS..... 11

MANAGEMENT COMMENTS..... 11

INSPECTOR COMMENTS..... 12

Appendix

Scope and Methodology..... 13

Overview

INTRODUCTION AND OBJECTIVE

The purpose of this inspection was to review the management of accountable Government-owned personal property at the Department's Ashtabula Environmental Management Project (Ashtabula) in Ashtabula, Ohio. Earthline Technologies (Earthline), formerly RMI Environmental Services, is the Department's environmental restoration contractor at Ashtabula.

Earthline is a division of RMI Titanium Company (RMI) headquartered in Niles, Ohio. This inspection dealt with functions assigned by RMI to Earthline, and for the purposes of this report Earthline and RMI are to be considered interchangeable. Earthline owns the Ashtabula site, where it processed uranium under contract with the Department and its predecessor agencies beginning in 1962. When the Ashtabula cleanup began in 1993, the Department negotiated site remediation with RMI as part of close-out under the preceding contract. The cleanup process eventually chosen involved washing the soil at the site in a manner then believed to be more economical than off site shipment and disposal. Earthline and the Department each own about half of the buildings on the Ashtabula site and the Department owns about 99 percent of the site equipment. Cleanup operations at the Ashtabula site are currently regulated under a radiological license granted by the Ohio Department of Health, Bureau of Radiation Protection.

The objective of this inspection was to determine if Ashtabula was properly managing Government-owned personal property in accordance with Departmental and other Federal property management requirements. During this inspection, the Office of Inspector General (OIG) identified related issues requiring immediate management attention. These issues were addressed in our June 2001 Letter Report on "Environment, Safety and Health Issues at the Ashtabula Environmental Management Project."

OBSERVATIONS AND CONCLUSION

The inspection found that the Ashtabula site was not managing Government-owned personal property in accordance with Departmental and other Federal property management requirements. Specifically, Department officials allowed Earthline to stockpile Government-owned personal property without a valid Departmental need or mission requirement. Earthline's marketing brochure and its Department funded website advertised some of the Government-owned personal property for the commercial disposal of potentially contaminated waste, work which was outside the scope of the Department's cleanup contract. This was despite an April 2000 audit by the Department's Ohio Field Office which concluded Earthline was improperly using Government

property for commercial use, and a June 2000 Contracting Officer letter directing that Earthline not engage in further unauthorized use of Government property. Consequently, Government-owned personal property was not being managed in the best interests of the Department.

This report specifically discusses seven pieces of Government-owned personal property that were chosen to illustrate property management practices at Ashtabula. These pieces of equipment originally had an acquisition cost, when purchased by the Government, of over \$2.6 million. Once the equipment was transferred to the Ashtabula contractor, the Government spent over \$1.8 million for equipment upgrades. Additionally, the Government spent over \$250,000 on the transportation of this equipment to, and its storage at, Ashtabula.

In addition to this inspection, the OIG Office of Audit Services is examining whether environmental remediation activities at Ashtabula are on schedule for completion by 2003.

Details of Finding

IMPROPER MANAGEMENT OF U.S. GOVERNMENT PROPERTY

Contrary to property management requirements and the best interests of the Department, Earthline obtained numerous items of personal property, using Federal funds, without a valid Departmental need or mission requirement. Once received, many items were placed in storage for long periods at Department expense. Other items underwent costly modifications at Department expense before being stored. Some items were used for commercial work that was outside the scope of the Department's cleanup contract. For example, although a May 2000 audit report by the Department's Ohio Field Office cited Contracting Officer Letter OH-1198-98, denying use of Government-owned equipment for commercial work, the audit noted extensive use of Government-owned equipment by Earthline for commercial work without reimbursement to the Department. Based on the audit findings, the Contracting Officer instructed Earthline to develop a comprehensive plan to preclude further unauthorized use of government property. Nevertheless, the inspection found Earthline was advertising Government equipment for commercial disposal of potentially contaminated waste, and was also using government laboratory equipment to analyze samples for radioactivity under commercial contracts. This issue has been referred for further review within the OIG.

Earthline manages approximately \$13 million of accountable Government-owned personal property. The following sections highlight selected examples where personal property was not managed according to the best interests of the Department.

Waste Water Treatment Plant

In October 1998, Earthline obtained an excess Department waste water treatment plant (treatment plant) from Grand Junction, Colorado. This treatment plant was originally justified as a replacement for an aging onsite treatment plant and also for use in site cleanup. However, after receipt, the treatment plant was never placed in service because its projected uses were overcome by events. Additionally, another method of treatment had already been approved as a temporary solution before the treatment plant was received.

According to documentation provided by Earthline, the treatment plant had an acquisition cost of over \$850,000. The treatment plant was shipped at a cost of over \$27,300. An additional \$4,600 was paid for unloading and placing it in storage in the RMI Metals Facility. Since its delivery, Earthline has charged the Department a rental fee of over \$1,000 per month for storage of the non-operational unit. The OIG noted that Earthline did not possess a radiological license to store the contaminated treatment plant in the

RMI Metals Facility. Based on the initial OIG observation and notification to management, Earthline contacted the Ohio Bureau of Radiation Protection to disclose their possession of the treatment plant. During August 2001, Earthline received a Notice of Violation and fine from the Ohio Bureau of Radiation Protection for storage of the treatment plant at the RMI Metals Facility.



CONTAMINATED WASTE WATER TREATMENT PLANT AT RMI METALS FACILITY

Portable Ash Block Processing Plant

In December 1998, Earthline officials initiated procurement of a portable ash-block processing plant (brick maker) system from a company in New Mexico. The purpose of the system was to stabilize hazardous soil by compression forming contaminated soil-like material and fly ash into compacted bricks. Earthline bought the used system for \$30,000 and received the system in January 1999. Prior to the system being sold to Earthline, it was slated to be sold at auction. The OIG found that Earthline had charged the Department over \$690,000 to upgrade the system but never used it in site cleanup operations.

The transportation cost of shipping the brick maker system was \$1,550, and the Department has paid rental fees to Earthline of \$2,175 a month to store the system since January 1999. During our inspection, we noted that Earthline was advertising portable mixed waste treatment equipment, including a compression forming brick maker, for use on commercial contracts. According to an Earthline official, the only brick maker Earthline possesses belongs to the Government. Therefore, it appeared Earthline was advertising Government property for commercial services without authorization.



THE PORTABLE ASH BLOCK PROCESSING PLANT

Soil Washing Pilot Plant

In September 1996, Earthline officials requested transfer of a soil washing pilot plant (pilot plant) from the Department's Fernald Environmental Management Project (Fernald) for use in a soil washing pilot study. In the study, the pilot plant was portrayed as a significant cost saving device to support Ashtabula soil washing. The pilot plant was received from Fernald in two phases. Phase I of the plant was received in November 1996 and phase II was received in March and April 1997. The pilot plant was considered "High Risk" property under Department regulations because it was contaminated with radioactivity.

The pilot plant originally had an acquisition cost of \$446,151. Parts were shipped under phase I at a transportation cost of \$13,148, and parts were shipped under phase II at a transportation cost of \$10,100. Once the entire plant was received it was placed in storage. Some parts from phase I were used to upgrade another similar system, but other parts from phase I and none of the parts from phase II were ever used. Finally, Earthline's records depicted that over \$450,000 was spent, between Fiscal Years 1997 and 1999, in modification costs, including parts and labor, while the pilot plant was stored.



STORED PILOT PLANT EQUIPMENT

Molten Salt Oxidation Unit

In June 1997, Earthline officials initiated procurement of a Molten Salt Oxidation (MSO) unit from a research and laboratory company in Research Triangle, North Carolina. The North Carolina company had obtained the MSO unit from a South Carolina university. The MSO unit originated at the Department's Oak Ridge Reservation in Tennessee. The MSO unit was initially obtained by Earthline to pursue a commercial initiative not related to the cleanup contract at Ashtabula.

In September 1997, the MSO unit was delivered to Earthline, with shipping papers which identified the equipment as "Scrap." The OIG was told that the MSO unit was received without any reference in shipping documents to radioactive material. After Earthline personnel unloaded the MSO unit they determined it was contaminated with radioactive cesium. According to an Earthline manager, the unit was stored in the RMI Metals Facility in anticipation of decontamination and refurbishment by Earthline.

Although procured for commercial work, the cost associated with upgrading and refurbishing the unit, estimated at over \$475,000, was charged to the Department. An Earthline manager believed that the MSO unit was moved from the RMI Metals Facility, which is not licensed for radioactive materials, to the Extrusion Plant, in October 1999. Moreover, responsible Earthline officials informed the OIG that the rental cost charged to the Department was about \$200 per month while the unit sat idle from September 1997 to

October 1999. According to a Department of Energy Ohio Field Office official, the MSO unit was then recontaminated by Earthline during testing at the Extrusion Plant. During the inspection, we noted that Earthline was advertising mixed waste treatment equipment, including molten salt oxidation equipment, for use on commercial contracts.

Based on the initial OIG observation and notification to management concerning contaminated property at the unlicensed RMI Metals Facility, Earthline contacted the Ohio Bureau of Radiation Protection. During August 2001 Earthline received a Notice of Violation and fine from the Ohio Bureau of Radiation Protection for unlicensed storage of radioactive waste from the MSO unit at the RMI Metals Facility.



MOLTEN SALT OXIDATION UNIT

Electro-Thermal Processing System

In October 1998, Earthline officials requested transfer of an Electro-Thermal Processing System, also known as a plasma arc furnace, from the Department's Western Environmental Technology Office in Butte, Montana.

According to Earthline documents, the plasma arc furnace had an acquisition cost of \$853,000. The cost of transporting the plasma arc furnace from Montana to Ashtabula was approximately \$25,000. Moreover, the Department has been paying a rental fee to Earthline of \$1,000 a month to store the furnace system since

receipt. The justification for the request was treatment of mixed waste at the Ashtabula site. The value of obtaining the plasma arc furnace was represented as a significant cost savings. However, once the system was received, it was placed in storage in the RMI Metals Facility and never installed. Moreover, Department Headquarters never approved the decision to use the plasma arc furnace at Ashtabula. Furthermore, a “Baseline Change Proposal” document did not reflect that the Department approved a change to the contract for the system. A Baseline Change Proposal did state that “A plasma arc furnace is one possibility for treatment, but may not be acceptable due to perceptions of it being an incinerator and the associated permitting issues.”

As a result of our inspection, Earthline management reported the plasma arc furnace through the Department’s excess property process known as “EADS.” Another Department site has since shown an interest in obtaining the system.

Four Sperry Filter Presses

In August 1997, Earthline officials requested transfer of four Sperry Filter Presses from the Department’s Fernald Environmental Management Project to the Ashtabula site. The filter presses were initially requested as laboratory equipment in support of a soil washing study. The request stated, “Acquisition of these items will represent a significant cost savings for the study and may provide savings for the RMI Decommissioning Project.” The acquisition cost of the filter presses was originally \$277,876.

According to an Earthline official, the filter presses were received in December 1997 and delivered to RMI Metals Facility for storage. The transportation cost for moving the presses to the Ashtabula site was \$950. The filter presses were never placed in operation, and the Department has continued to store this equipment. According to an Earthline official, it was decided in late 1998 that there was no need for the filter presses at the site, but they were not reported through the Department’s excess property process (EADS) until June 2001.



EXAMPLE OF FILTER PRESS

Micro-Encapsulation System

In March 1998, Earthline officials requested, through the Department's Ashtabula Project Manager, an excess Micro-encapsulation system from the Department's Rocky Flats Site. In a summary letter, prepared by an Earthline engineering manager, the Micro-encapsulation system was said to be a "vital cog in the overall integrated mixed waste treatment approach [at Ashtabula]." Also, the summary stated, "The integrated approach will save over \$2.5 M [million] in mixed waste treatment cost and will allow for schedule acceleration." Finally, "Timely relocation of this unit [Micro-encapsulation system] is critical to meeting the RMIDP Federal milestones for treatment and shipment by October 1999 and December 1999, respectively."

The subcontract for testing and shipping the system from Rocky Flats required the work to be performed between September 11 and 30, 1998. Contrary to its justification for urgent need, the system was not shipped until after July 1999. According to an Earthline project manager, the Micro-encapsulation system underwent a test run between September and December 2000. The operating permit for the system from the Ohio Health Department was received in October 2000. The project manager stated that the system was turned over to site operations personnel for routine use on January 4, 2001.

The OIG noted some questionable costs related to the Micro-encapsulation system. In September 1998, a sole source purchase order was initiated by Earthline to hire Advanced Integrated

Management Services, Incorporated (AIMS), to obtain and service the Rocky Flats' system to support waste treatment. Initially, the purchase order was estimated at \$50,000. However, the actual purchase order was \$99,999. After discussions with Earthline officials, the OIG concluded that the \$99,999 price was established because the Department's Contracting Officer must approve sole source purchase orders over \$100,000. Including the amount paid to AIMS, the Department ended up paying over \$233,000 to retrieve, partially test, and transfer the system to Ashtabula.

Lastly, during the inspection we noted that Earthline was advertising mixed waste treatment equipment for use on commercial contracts. The advertisements included micro-encapsulation equipment.

**CAUSES OF
PROPERTY
MANAGEMENT
DEFICIENCIES**

In 1995, in response to Congressional inquiries, senior Department officials agreed to encourage future development for the Ashtabula site. This agreement did not specifically address or authorize the use of Government-owned personal property. However, due to these initiatives, Ohio Field Office officials supported Earthline's approach to waste disposal for the Ashtabula Site. Therefore, Ohio Field Office officials signed the purchase orders or transfer documentation for Government personal property; but failed to ensure that the property was actually needed and efficiently managed following receipt.

RECOMMENDATIONS

We recommend that the Manager, Ohio Field Office:

1. Conduct an evaluation to determine what personal property is required for mission accomplishment at Ashtabula and have those items not required processed through the Department's excess property system.
2. Direct the Department's Ashtabula Project Director to review all requests for personal property and ensure that the contractor has a valid requirement before approval. The Director should require the contractor to perform life cycle cost analysis when costs are significant.

**MANAGEMENT
COMMENTS**

The Manager, Ohio Field Office, concurred with the recommendations and provided the following comments:

“The problems identified by the OIG arose out of the strategy to utilize excess equipment whenever possible to avoid the expense of purchasing new equipment and reuse equipment to reduce generation of additional wastes, both nuclear and hazardous. Decisions on obtaining equipment were made under time constraints and with a clear understanding that new strategies or changes in regulatory requirements could make previous decisions obsolete.

Equipment for the treatment of mixed waste was often obtained to facilitate possible treatment methodologies that were not fully developed. The final disposition of mixed waste streams was complicated by the lack of viable off site treatment options during the mid to late 1990s. Additionally, time constraints imposed by Regulatory Milestones in the Site Treatment Plan made the disposal of mixed waste a high priority. Utilizing excess equipment allowed the Project to develop viable treatment options.

The root cause of the issues identified was the lack of managing the disposition of government equipment more so than its acquisition. In most of the examples provided in the report, excess costs were associated with holding equipment that no longer had a viable use. This problem was, in all probability, further exacerbated by the site contractor's motivations as identified in the IG report.”

Additionally, the Manager stated that “The Department is still considering use of the ‘Brick-Maker’ for treatment of lead soils. The Department deferred the planned processing of these soils in FY01 in order to redirect funding into building remediation. The

OHIO EPA is now strongly encouraging the remediation of the lead soils in FY02. It should also be noted that the 'Brick-Maker' was not purchased under a Government purchase order. Earthline procured this item without the Department's approval."

**INSPECTOR
COMMENTS**

Management comments were responsive to the recommendations. General comments provided by management have been incorporated into the report where appropriate.

Appendix A

SCOPE AND METHODOLOGY

This inspection was performed at the Ohio Field Office and the Ashtabula Environmental Management Project from May through July 2001.

This inspection was conducted in accordance with the “Quality Standards for Inspections” issued by the President’s Council on Integrity and Efficiency. As part of our inspection we interviewed officials at the Department’s Ohio Field Office and the Ashtabula Environmental Management Project. We also reviewed pertinent records and documents pertaining to the Earthline’s Property Management System. Further, we reviewed related reports by the Office of Inspector General.

CUSTOMER RESPONSE FORM

The Office of Inspector General has a continuing interest in improving the usefulness of its products. We wish to make our reports as responsive as possible to our customers' requirements, and, therefore, ask that you consider sharing your thoughts with us. On the back of this form, you may suggest improvements to enhance the effectiveness of future reports. Please include answers to the following questions if they are applicable to you:

1. What additional background information about the selection, scheduling, scope, or procedures of the inspection would have been helpful to the reader in understanding this report?
2. What additional information related to findings and recommendations could have been included in the report to assist management in implementing corrective actions?
3. What format, stylistic, or organizational changes might have made this report's overall message more clear to the reader?
4. What additional actions could the Office of Inspector General have taken on the issues discussed in this report which would have been helpful?
5. Please include your name and telephone number so that we may contact you should we have any questions about your comments.

Name _____ Date _____

Telephone _____ Organization _____

When you have completed this form, you may telefax it to the Office of Inspector General at (202) 586-0948, or you may mail it to:

Office of Inspector General (IG-1)
Department of Energy
Washington, DC 20585

ATTN: Customer Relations

If you wish to discuss this report or your comments with a staff member of the Office of Inspector General, please contact Wilma Slaughter at (202) 586-1924.

This page intentionally left blank.

The Office of Inspector General wants to make the distribution of its reports as customer friendly and cost effective as possible. Therefore, this report will be available electronically through the Internet at the following alternative address:

U.S. Department of Energy Office of Inspector General Home Page
<http://www.ig.doe.gov>

Your comments would be appreciated and can be provided on the Customer Response Form attached to the report.