

AUDIT REPORT

SANDIA NATIONAL LABORATORIES PERSONAL PROPERTY ACCOUNTABILITY



SEPTEMBER 2001

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF AUDIT SERVICES



U. S. DEPARTMENT OF ENERGY
Washington, DC 20585

September 17, 2001

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman (Signed)
Inspector General

SUBJECT: INFORMATION: Audit Report on "Sandia National
Laboratories Personal Property Accountability"

BACKGROUND

The Department of Energy (Department) requires its contractors to track accountable property from acquisition to final disposition. In this regard, Sandia National Laboratories (Sandia) is responsible for significant quantities of Department-owned personal property. This personal property, which is defined as property of any kind, excluding real estate and permanent fixtures, is located at various sites including overseas locations. To track property, Sandia uses a Fixed Assets Database, which was designed to be a management tool to account for Government property. A unique property control number is to be affixed to each item and, once entered into the database, the property control number is the mechanism used to track the location of each item through ultimate disposal. As of December 2000, the Sandia Database contained about 53,000 items valued at approximately \$1.1 billion.

For several years, the Office of Inspector General (OIG) has been reporting on significant deficiencies in controls over Government property. In fact, the OIG's Special Report on *Management Challenges at the Department of Energy*, dated November 2000, identified property controls and asset inventories as one of the most serious challenges facing the Department today. The objective of this audit was to evaluate the accuracy of Sandia's Fixed Assets Database.

RESULTS OF AUDIT

The audit disclosed that Sandia's Fixed Assets Database, a primary tool in the effort to ensure property accountability, was not accurate. Specifically, we found that a significant number of personal property items were not listed in the Database, and that property included in the Database could not always be located. Using "reverse" sampling techniques, we found that about 20 percent of the items in our sample were not included in the Database. Another sample, taken from a list of items inventoried by Sandia during its FY 2000 inventory, showed that although Sandia officials had verified the existence of the items, we could not find over 5 percent of the items sampled. Follow-up conversations with Sandia property officials indicated that these items had not been physically verified during the laboratories' most recent inventory.

In addition, we found that property coordinators were not effectively ensuring that the Database was complete and up to date. In total, we estimated that the Database did not include between 6,100 and 19,500 property items. Based on these shortcomings, we concluded that the Database was not an effective tool in managing Government property entrusted to Sandia.

MANAGEMENT REACTION

Management officials at the Albuquerque Operations Office (Albuquerque) concurred with the recommendations in the report. Albuquerque issued a letter on July 6, 2001, that directed Sandia to re-assess the property record system and institute appropriate improvements. Sandia was also directed to perform a root-cause analysis to determine appropriate system enhancements that will ensure safeguarding and controlling of Government property. Sandia will conduct a laboratory-wide wall-to-wall inventory in FY 2002 to review Database accuracy.

Attachment

SANDIA NATIONAL LABORATORIES PERSONAL PROPERTY ACCOUNTABILITY

TABLE OF CONTENTS

Overview

Introduction and Objective..... 1

Conclusions and Observations..... 1

Accuracy Of Fixed Assets Database

Details of Finding 3

Recommendations and Comments 6

Appendices

Scope and Methodology..... 9

Past Audits 11

Projection of Reverse Sample Results..... 12

Overview

INTRODUCTION AND OBJECTIVE

One of the management challenges facing the Department of Energy (DOE) today is controlling its property. Accordingly, Sandia National Laboratories (Sandia) is responsible for the personal property it acquires. Personal property is generally property of any kind, excluding real estate and permanent fixtures. To meet its responsibility, Sandia uses a Fixed Assets Database. Property meeting established criteria is assigned a property control number (property tag) and is to be included in the database. Property in the database is generally segregated as sensitive (i.e., computers and cameras) or non-sensitive (i.e., laboratory equipment). Once in the database, the location of each item is to be tracked until ultimate disposal. The property in the database is physically located at various sites, including overseas locations. As of December 2000, the database contained about 53,000 items valued at approximately \$1.1 billion.

To validate the accuracy of the database, Sandia uses a 4-year inventory cycle that includes both wall-to-wall and statistical sampling techniques. The last wall-to-wall inventory completed in Fiscal Year (FY) 1999 indicated that Sandia was able to account for about 99 percent of its property in the database.

In prior Office of Inspector General (OIG) audits, concerns with accurate recording of property have been reported at various locations across DOE. Additionally, the OIG's *Special Report on Management Challenges at the Department of Energy* found that asset inventories and control over property were among the most serious challenges facing DOE today. Thus, the objective of this audit was to determine if Sandia's Fixed Assets Database was accurate.

CONCLUSIONS AND OBSERVATIONS

Sandia's Fixed Assets Database was not accurate. All property required to be included was not, and property that was listed could not always be located. This occurred because the actions of property coordinators were not effective in ensuring the database was complete or updated, as necessary and inventory validation procedures used by Sandia were questionable. As a result, we estimated that Sandia was not tracking between 6,111 and 19,501 property items; thus, DOE cannot be assured that inventories using information from the database were accurate.

The audit identified a material internal control weakness that management should consider when preparing its yearend assurance memorandum on internal controls.

Signed)
Office of Inspector General

Accuracy Of Fixed Assets Database

Fixed Assets Database Not Accurate

The property database was not accurate. Property was not always included in the database and when it was included, it could not always be located. For example, a reverse sample of 179 items located at various sites showed that 35 items, or about 20 percent, were not included in the database. The Sandia database excluded a \$23,000 cleaning machine, a \$10,000 television, and a \$9,000 printer. It also excluded some sensitive items such as a tagged computer and an untagged camera that were comparable to items included in the database. Using statistical sampling procedures we projected that the database excluded between 6,111 and 19,501 items that met the tracking requirement.

We discussed our findings with Sandia property officials who disagreed with some of our examples. Sandia claimed that these examples did not meet the criteria established for inclusion in the database and challenged whether the cleaning machine should have been included. We reexamined this issue and found that the items did meet the database criteria, and at least 11 other similar cleaning machines were being tracked in the database. Sandia agreed that the other items identified in the sample should have been tracked in the database.

In addition, property that was included in the database could not always be found. A sample of 77 items was selected to verify the accuracy of property included in the database. The sample was based on a list of 1,805 items that had been inventoried by Sandia personnel and recorded as found during their FY 2000 statistical sample inventory. Although Sandia officials had verified the existence of all 77 items, we could not find 4, or 5.2 percent, of the items sampled. The missing property included a \$7,000 workstation and a \$6,000 oscilloscope. Follow-up conversations with Sandia property officials indicated that the 4 inventoried items had not been physically verified.

Accounting For Government Property

Provisions within the Department of Energy's Acquisition Regulation Part 970 and Property Management Regulation (DPMR) Chapter 109 require contractors, such as Sandia, to track accountable property from acquisition to final disposition. The property records are to record the property's classification (sensitive or non-sensitive), serial number, property number, manufacturer, model, location, and final disposition information. Regular inventories are used to ensure the accuracy of the database. DPMR 109 requires the actual verification of the location and existence of property. Procedures that do not include actual verification do not meet this requirement.

Sandia's management and operating contract reiterates and defines many of these requirements. Sandia's *Property/Assets Management Process Manual* (Property Manual) requires that sensitive property (generally firearms regardless of cost, and computers, cameras, and portable tools costing \$1,000 or greater) and non-sensitive property (items \$5,000 or greater, such as laboratory equipment and printers) be input into the database and tracked with a unique property number.

When inventories are conducted, property numbers are to be scanned and compared to the database. Verification memos are to be used when property cannot be inventoried by scanning. These memos are to be prepared and signed by persons who are knowledgeable of the item's location and can attest to the property's existence. Additionally, Sandia's FY 2000 inventory procedures allowed for the use of verification memos during the statistical sample inventory.

Property coordinators are assigned within various organizations at Sandia to act as the focal points of contact for property related issues. Many of the approximately 500 coordinators have collateral duties that include maintaining and updating the database records as well as assisting with inventories. These duties are described throughout the Property Manual.

**Effectiveness Of
Property Accountability
Controls**

The actions of some property coordinators were not effective in ensuring the database was complete or updated, as necessary. Further, inventory validation procedures used by Sandia were questionable. Both of these problems were exacerbated by the fact that there were no performance measures related to the accuracy of the database.¹

Property Coordinators Responsibilities

Property coordinators did not always ensure that newly purchased property was tagged and entered into the database. Of the 179 items we attempted to trace to the database, 12 (about 7 percent) had not been assigned property tags, even though the items were assets that met the criteria for inclusion in the database. Sandia property management personnel acknowledged that they were not informed of all new property that needed to be tagged or entered in the database.

¹ Sandia does not have a performance-based contract. Sandia is paid a fixed fee; therefore, the absence of performance measures does not have any impact on the fee.

Property coordinators also were not ensuring that database fields were complete. Of the 53,000 items in the database, about 4,400 did not have serial numbers recorded. Without a property tag the only way to positively identify property is with serial numbers.

In addition, property coordinators did not always update the database when changes occurred. For example, in one organization the property coordinator did not change the location of 19 off-site property items until 15 months after the transfer took place--and then only after the OIG inquired about the property. Further, we sampled 30 property items reported to Sandia security as stolen or missing from FY 1998-2000. As of December 2000, however, only 7 were noted in the database as missing or stolen; the others were reported as still in use.

Finally, neither Sandia nor Albuquerque Operations Office (Albuquerque) ensured that property coordinators were familiar with their duties. Sandia officials stated that many of the approximately 500 property coordinators had these responsibilities as a collateral duty. Further, within the Property Manual, the responsibilities of property coordinators were not consolidated in one location.

Current Inventory Procedures

Sandia's inventory validation procedures used in FY 2000 were of questionable value. Sandia did not randomly select items for tracing back to the database (reverse sampling) to ensure property was accurately recorded. Reverse sampling is a business tool used to ensure accuracy of the record system. In addition, Sandia relied on the use of verification memos as an attestation of a property item's existence. However, these memos were accepted without ensuring that memos were properly signed. Further, Sandia judgmentally selected on-site memos for validation but excluded those from off-site.

Of the 138 memos received in the FY 2000 inventory, 102 were not signed by the employee to whom the property was assigned--the person that should be most knowledgeable regarding status of the item in question. For 5 of the 138 memos, there were no signatures as required. For example, memos received from Sandia personnel located in Livermore, California, during the FY 1999 and 2000 inventories stated that a \$21,000 turbo pump was located at the Los Alamos National Laboratory (Los Alamos). Sandia accepted these memos without any follow-up to substantiate a specific location. However, the auditors discovered that the pump was damaged and disposed of sometime

before the FY 1999 and 2000 inventories. Since this item was off-site, it was exempt from Sandia's validation process. However, almost half of the 138 memos received in the FY 2000 inventory were for off-site property.

Memos that were selected for validation were done so judgmentally, instead of randomly. Consequently, it appeared that Sandia went through the mechanics of validating its inventory, but the validation process was flawed due to a lack of objectivity. Therefore, DOE cannot be assured that the inventories were accurate.

Further, we assessed the performance measures established under *The Government Performance and Results Act of 1993* related to the accuracy of Sandia's Fixed Assets Database. Although performance measures related to conducting cost-effective inventories of equipment and sensitive property were found, there were no performance measures that specifically addressed the accuracy of the database.

After discussing both of the above matters with the auditors, property management officials took some corrective action including requiring documentation for off-site property during the FY 2001 inventory. Property coordinators were also informed of the need to notify property management when trackable items without property tags were found.

Establishing Accountability

The Fixed Assets Database was designed to be a key management tool in accounting for Government property held for use by Sandia. However, the database did not account for all property and, therefore, could not be relied upon. In addition, the property, including sensitive items, that was not accounted for could lead to undetected losses.

Our statistical determination of 6,111 to 19,501 items acquired, but not included in the database, could lead to a significant understatement of Sandia's assets. The database currently tracks about 53,000 items valued at approximately \$1.1 billion. Although there is no statistical methodology to assign a dollar value to the unrecorded items, there is every reason to believe the value of these items is worth millions of dollars.

RECOMMENDATIONS

We recommend that the Manager, Albuquerque Operations Office require Sandia National Laboratories to:

1. Consolidate all the duties and responsibilities of property coordinators in a single document. This document should specify that the duties include (a) completing all database identifier fields,

such as descriptions, serial and model numbers and (b) updating and informing property management on the status of lost or stolen property.

2. Develop an action plan to ensure the database is accurate.
3. Develop an inventory methodology that includes:
 - The use of reverse samples--the tracing of property back to the database.
 - An objective methodology to validate all verification memos. The methodology should include validation of memos for off-site property on a rotating basis.
4. Develop performance measures to ensure the accuracy of the Fixed Assets Database.

MANAGEMENT COMMENTS

Albuquerque concurred with the recommendations in the report.

Recommendation 1. Sandia will update existing procedures to delineate the duties and responsibilities of property coordinators in a specific section. The procedures will address record data fields and a process to better inform property management on status of lost/stolen property. Target completion date is January 31, 2002.

Recommendation 2. Albuquerque stated that Sandia would conduct a wall-to-wall inventory of equipment and sensitive items in FY 2002. Sandia's inventory validation will include record-to-floor and floor-to-record sampling to review database accuracy. Albuquerque will also review and validate database accuracy as part of the FY 2002 Business Management Oversight Review (Oversight Review). This action will be completed by September 30, 2002.

Recommendation 3. Albuquerque stated that Sandia Property Management has historically conducted reverse sampling and will continue to do so. Further, Albuquerque stated that it had already identified a concern with verification memos in its FY 2000 Oversight Review and Sandia had implemented corrective action during the FY 2001 inventory. Thus, both actions were considered complete.

Recommendation 4. Albuquerque stated that Sandia currently has an "unscored" measure in the FY 2001 Oversight Review that was negotiated with Albuquerque prior to the OIG audit to review the Fixed Assets Database accuracy. Sandia will continue to include Fixed Assets Database accuracy in future self-assessments. Albuquerque will elevate the measure to a "scored" measure in the FY 2002 Oversight Review. The FY 2002 measure will be negotiated by September 30, 2001.

Albuquerque issued a letter on July 6, 2001, that directed Sandia to re-assess the property record system and institute appropriate improvements. Albuquerque also directed Sandia to perform a root-cause analysis to determine appropriate system enhancements that will ensure safeguarding and controlling of Government-owned property. Albuquerque will consider the property system improvements when making its FY 2001 evaluation of Sandia's business management performance. These improvements will be factored into Albuquerque's determination as to whether or not Sandia's personal property management system will be approved for the current contract cycle. In its response to this letter, Sandia management stated it would perform the root-cause analysis by the end of the current fiscal year to determine system enhancements. Sandia management also stated that it considered this an important matter and will take those actions necessary to ensure the maintenance of an approved personal property management system.

AUDITOR COMMENTS

Management was fully responsive to the recommendations. With respect to recommendation 3, we found no evidence that Sandia used reverse sampling or implemented verification memo validation procedures for off-site property prior to the start of the audit. However, we are pleased that both procedures are now being implemented and believe that the recommendation should remain open until the implementation is complete. Further, we commend Albuquerque on its prompt actions to require Sandia to increase its database accuracy.

Appendix 1

SCOPE

The audit was performed between November 2000 and June 2001, at Albuquerque and Sandia sites in New Mexico, Texas, Colorado, Nevada, and California. The audit examined records related to both the FY 1999 wall-to-wall and the FY 2000 statistical sample inventories.

METHODOLOGY

To accomplish the audit objective, we:

- Reviewed applicable public laws, DOE orders, other guidance and related correspondence, and contracts;
- Reviewed prior OIG and General Accounting Office reports;
- Reviewed compliance with the *Government Performance and Results Act of 1993*;
- Performed a judgmental sample of 77 property items inventoried in the FY 2000 statistical sample inventory--74 were taken from verification memos and 3 from items which had been scanned;
- Selected 179 personal property items at random for tracing back to the Fixed Assets Database;
- Analyzed the contents of the Fixed Assets Database related to personal property items;
- Interviewed personnel at Albuquerque, Sandia, and other DOE national laboratories;
- Reviewed verification memos and supporting documentation obtained during the FY 1999 and 2000 inventories;
- Consulted several statisticians--one employed by the George Washington University and the U.S. Bureau of Census, another at the New Mexico State University, a third from the University of New Mexico, and a fourth from the Los Alamos National Laboratory; and,
- Reviewed literature related to capture-recapture population estimation methodology (capture-recapture).

The audit was conducted 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 objective of the audit. Accordingly, we assessed the significant internal controls related to the accuracy of Sandia's Fixed Assets Database. 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. Due to the problems identified in this audit, we could not rely on computer processed data to conduct this audit. We held an exit conference with Albuquerque officials on August 16, 2001.

Appendix 2

PAST OFFICE OF INSPECTOR GENERAL AUDITS AND REVIEWS RELATING TO PROPERTY MANAGEMENT

- *Special Report on Management Challenges at the Department of Energy* (OIG Report DOE/IG-0491, November 2000). The report found that asset inventories and control over property were among the most serious challenges facing DOE today.
- *Personal Property at the Oak Ridge Operations Office and the Office of Scientific and Technical Information* (OIG Report ER-B-98-07, April 1998). The report found that property was not adequately safeguarded and property records were inaccurate and incomplete.
- *Summary Report on the Department of Energy's Management of Personal Property* (OIG Report DOE/IG-0344, March 1994). The report found continuing deficiencies in the approval of contractor property management systems; inventory management; as well as the proper identification, storage, and disposal of excess property.
- *Audit of Personal Property Management at Los Alamos National Laboratory* (OIG Report DOE/IG-0338, December 1993). Los Alamos did not effectively protect inventory of Government-owned property with an acquisition cost of about \$1 billion. Los Alamos did not account for \$11.6 million of Government-owned property. In addition, the personal property database contained \$22.2 million of incorrectly recorded property and \$61.7 million of personal property that could not be inventoried.

PROJECTION OF REVERSE SAMPLE RESULTS

We selected a reverse sample of property items from various Sandia locations. The items were traced to the database using the property and serial numbers. Those items not in the database were counted as errors.

Based on guidance received from four professional statisticians, we used the capture-recapture to project the results of the reverse sample. In using capture-recapture, we established three assumptions (1) the population is closed--there were no additions or subtractions during our sample, (2) tracked and untracked property were equally likely to be found, and (3) all property numbers were recorded correctly. Next we established the following parameters for our sample projection:

- Number of personal property items in the database as of December 4, 2000 - 53,053.
- Number of items in the reverse sample - 179.
- Number of items traced to and not found in the database - 35.

Using the Chapman and Direct Sampling estimation methodologies, we estimated that there were 66,317 property items (both recorded and unrecorded). Further, we were able to estimate, with 95 percent confidence, that the total number of items not recorded in the database ranges from 6,111 to 19,501. We could not project the value of the unrecorded property using our statistical methodology. However, if we conservatively assumed that each item was valued at \$1,000 (the minimal amount for inclusion in the inventory as a sensitive item), then the value of unrecorded property items would be between \$6.1 and \$19.5 million.

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 audit 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 this 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?

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 fax it to the Office of Inspector General at (202) 586-0948, or you may mail it to:

Office of Inspector General (IG-1)
U.S. Department of Energy
Washington, D.C. 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.

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 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.