U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL

# AUDIT OF DESKTOP COMPUTER ACQUISITIONS

# AT THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

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# AUDIT OF DESKTOP COMPUTER ACQUISITIONS AT THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

Audit Report Number: WR-B-97-07

## SUMMARY

Federal and Department of Energy (Department) acquisition regulations, policies and procedures, as well as the terms of the current contract between the Idaho Operations Office (Idaho) and Lockheed Martin Idaho Technologies Company (Lockheed) require them to pay the lowest possible prices for desktop computers needed to support the overall mission at the Idaho National Engineering and Environmental Laboratory (Laboratory). The purpose of this audit was to determine Idaho's and Lockheed's success in achieving this price goal.

Idaho and Lockheed have implemented numerous efficiency standards that are expected to reduce computer service and maintenance costs as well as increase employee productivity by approximately $3.6 million per year. However, the audit showed that Lockheed did not always pay the lowest possible prices for desktop computers because its standard desktop computer configuration was excessive. Additionally, some desktop computers that Lockheed acquired exceeded its established standard and were not fully justified in accordance with established policies and procedures. Further, Lockheed purchased desktop computers from a local vendor rather than a less costly alternative source and did not pursue the possibly more economical option of leasing computers.

We recommended that the Manager, Idaho Operations Office, reduce computer acquisition costs by having Lockheed establish and adhere to a more conservative standard configuration for computers, use alternative sources of supply, and re-evaluate the feasibility of leasing rather than continuing to purchase computers. By implementing these recommendations, the Office of Inspector General (OIG) estimates that the Department could save approximately $750,000 annually. Management concurred with the recommendations, and the OIG commends both Idaho and Lockheed for promptly initiating corrective actions.

_____/s/_____
Office of Inspector General

## PART I

## APPROACH AND OVERVIEW

## INTRODUCTION

Idaho and Lockheed are required to pay the lowest possible prices for desktop computer systems needed to support the Laboratory's overall mission. The purpose of the audit was to determine if they were successful in achieving this goal.

## SCOPE AND METHODOLOGY

The audit was conducted at Idaho's and Lockheed's offices in Idaho Falls, Idaho, from November 1996 through March 1997. The audit covered Idaho and Lockheed computer acquisitions (actual and planned) during the period October 1994 through September 1997. To accomplish the audit objective, we tested a sample of 70 computer acquisitions to determine whether Lockheed was adhering to its own internal policies and procedures governing its computer acquisition process. Also, we interviewed key personnel and reviewed:

- Federal and Department acquisition regulations;
- Lockheed's contract with the Department;
- Lockheed's internal policies and procedures governing computer acquisition procedures;
- computer acquisition requisitions, plans, vendor invoices, and accounting records to verify computer acquisition cost information;
- property reports for identifying total cost, accumulated depreciation, and net book values for computers; and,
- prior reviews and internal audit reports related to computers.

The audit was performed according to 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. We limited the review of internal controls to those controls associated with acquiring computers at the lowest possible price. Because the 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 rely extensively on computer processed data and, therefore, did not fully examine the reliability of that data. Management waived the exit conference.

## BACKGROUND

Prior to Fiscal Year 1995, five separate contractors managed the Laboratory's mission operations. Recognizing inefficiencies associated with this contractual arrangement, as well as the need to standardize Laboratory operations, the Department awarded a five-year, consolidated contract to Lockheed. As part of this

contract, the Department challenged Lockheed to employ good management practices and eliminate inefficiencies that previously existed at the Laboratory. After it accepted this challenge, Lockheed became the Laboratory's management and operating contractor at the beginning of Fiscal Year 1995.

Lockheed promptly recognized the need to reduce computer-related costs. To accomplish this task, Lockheed made a number of organizational changes to the Information Resources Management (IRM) office at the beginning of Fiscal Year 1995. Since then, Lockheed's IRM Director has significantly reduced computer-related costs. In accordance with provisions outlined in Department Order 1360.1B, "Acquisition and Management of Computing Resources," Lockheed planned computer system acquisitions well in advance of actual need for these resources. Additionally, with Idaho's approval, Lockheed decommissioned a super computer that was no longer needed to support the Laboratory's overall mission and was costing the Department about $625,000 per year to operate, service, and maintain.

In addition, Idaho and Lockheed recognized a need to replace more than 60 percent of the Laboratory's computer equipment, including desktop computers. Specifically, Laboratory property reports indicated that there were about 6,500 desktop computer systems that Idaho and Lockheed concluded should be replaced with standardized desktop computers. In establishing this standard for desktop computers, Idaho and Lockheed expected to increase employee productivity by as much as an estimated $3 million per year. This amount, added to the $625,000 attributed to eliminating the super computer, will result in the Laboratory saving about $3.6 million per year. The Office of Inspector General commends Idaho and Lockheed for implementing these cost reduction initiatives. As Part II of this report demonstrates, however, Idaho and Lockheed could realize additional cost savings.

## PART II

## FINDING AND RECOMMENDATIONS

### Desktop Computer Acquisitions at the Laboratory

FINDING

Federal and Department acquisition regulations, policies and procedures, as well as the performance-based contract currently in effect, require Idaho and Lockheed to pay the lowest possible prices for desktop computer systems needed to support the Laboratory's mission. The audit showed that Idaho streamlined its computer procurement process and paid lower prices for desktop computers than it would have paid under traditional contracting procedures. However, at Lockheed, desktop computer costs were still too high. Specifically, Lockheed's standard configuration for its desktop computers was excessive, acquisitions exceeded the standard configuration, and purchases were priced higher than necessary for desktop computers. Lockheed's desktop computer costs were higher than necessary

because its standard computer configuration was based on a multimedia computer, computer acquisitions that exceeded established standards were not challenged, and it acquired computers from a specific vendor rather than alternative supply sources. Further, Lockheed did not pursue an option to lease rather than purchase desktop computers. As a result, the Department could pay $750,000 more than necessary for desktop computer systems purchased each year.

RECOMMENDATIONS

We recommend that the Manager, Idaho Operations Office, decrease the Laboratory's computer acquisition costs by having Lockheed:

establish and adhere to a more conservative standard configuration for computers;

use alternative sources of supply; and,

re-evaluate the feasibility of leasing rather than purchasing computers and, if practicable, implement the results of this evaluation.

MANAGEMENT REACTION

Management concurred with the recommendations and has already initiated corrective actions. Detailed management and auditor comments are provided in Part III of this report.

## DETAILS OF FINDING

Purchasing goods and services at the lowest possible price is a requirement stated in the Federal and Department Acquisition Regulations. This requirement extends to Idaho as well as Lockheed's contract with the Department. Specifically, Lockheed's contract as well as its own internal policies and procedures require it to acquire goods and services at the lowest possible cost to the Department. The contract also encourages and authorizes Lockheed to use alternative sources of supply for goods and services.

COMPUTER ACQUISITIONS

While Idaho streamlined its computer acquisition process and paid lower prices for computers than it would have paid if it had followed traditional contracting procedures, its contractor, Lockheed, was not minimizing its acquisition costs for desktop computers. Specifically, Lockheed's computer costs were increased by adopting a standard configuration for desktop computer systems that exceeded user needs, acquiring systems with greater capabilities than the standard configuration, and paying excessive prices for these desktop computers.

Lockheed established a standard configuration for desktop computer systems that, compared to other organizations, exceeded its needs. According to Lockheed's desktop computer evaluation

reports published in 1995 and 1996, the standard computer configuration included multimedia capabilities, such as an internal sound card, external speakers, and a 17-inch monitor. We queried several large private companies (technically-oriented companies with 6,500 or more employees) to identify the standard desktop computer configuration they were using to support operations. These companies informed us that their standard configuration for desktop computers did not include the multimedia features that Lockheed included in its configuration. Furthermore, while the Laboratory's operations may need some multimedia computers with 17-inch monitors to support special applications and uses, we could find no support or justification for acquiring these multimedia computers for all Laboratory employees. By excluding the external speakers and continuing to use or acquire 15-inch monitors and only acquiring 17-inch monitors on a limited, justifiable basis, Lockheed could reduce its computer acquisition costs by as much as $550 per computer.

While we took exception to the standard configuration, we also found that Lockheed did not consistently adhere to this standard. We subjectively selected a sample of 70 Lockheed computer acquisitions made during the period October 1994 through March 1997. Of these 70 desktop computer acquisitions, 15 were consistent with or below Lockheed's standard configuration. The remaining 55 desktop computer acquisitions sampled exceeded Lockheed's standard configuration. Specifically, these 55 desktop computers included additional features, such as larger monitors and hard drives, additional random access memory, internal tape drives, and more powerful microprocessors. As a result, the average amount Lockheed paid for these 55 computers was $2,120 more per computer than its price for a standard desktop computer system.

Finally, Lockheed did not minimize its acquisition cost for desktop computers. For example, Lockheed paid a local vendor about $200 more for each desktop computer than it would have paid if it had used alternative sources of supply.

COMPUTER ACQUISITION STRATEGIES

Lockheed paid more than necessary for desktop computers because it decided to provide Laboratory employees with multimedia computer systems. It also allowed computer acquisitions that exceeded established standards without adequate justifications, and it did not use alternative sources of supply or pursue an option to lease desktop computers.

Lockheed's standard configuration exceeded user needs because management thought that all employees required multimedia computer systems. In management's response to a draft of this report, Lockheed stated that its standard multimedia computer configuration was a "middle of the road" configuration for normal business operations. Furthermore, Lockheed officials told us that this standard configuration would support a "computer-based training program." Yet, our inquiries with private companies disclosed that they do not acquire multimedia computers for every employee. Rather, these companies told us that they acquire and

use multimedia computers in centralized computer-based training centers, thereby negating the need to acquire multimedia computers for each employee.

In addition, Lockheed did not consistently adhere to this standard configuration when purchasing desktop computers because it did not follow its own internal computer acquisition policies and procedures. According to those procedures, users are required to justify the need for a new computer as well as obtain Director-level approval for all proposed acquisitions that exceed Lockheed's standard configuration. As noted, we identified 55 instances where desktop computer acquisitions exceeded Lockheed's established standard without the required Director-level approval. In only one case was an adequate justification prepared and Director-level approval obtained, and that occurred after a Lockheed employee purchased the computer.

Lockheed did not use alternative sources of supply because of the special services a local vendor could provide. These special services included setting up, starting, configuring, and diagnosing the computer. The audit disclosed, however, that Lockheed has an internal support group to provide these services. Lockheed also stated that the local vendor could deliver computers within five days after it placed the order. The audit showed, however, that Idaho does not require these services or special delivery schedules when it acquires computers. In addition, Lockheed's argument for vendors to deliver computers within five days was not compelling because it develops computer acquisition plans three years in advance of an actual need. Consequently, we concluded that Lockheed needs to carefully review and justify its continued acquisition of computers through a local vendor rather than alternative sources of supply, such as the General Services Administration, Federal Supply Schedules, the Small Business Administration's contracts, or other desktop computer vendors.

Lastly, Lockheed did not obtain the lowest possible costs because it continued to purchase rather than pursue the option to lease desktop computers. When Lockheed established its standard computer system configuration, it also evaluated the costs of leasing computers. The evaluation showed that Lockheed could save the Department about $5 million over a ten-year period by leasing rather than continuing to purchase desktop computers. However, Lockheed did not pursue this option because senior management did not want to commit the Department to a long-term leasing contract for computer equipment in light of numerous staffing changes that might cause computer equipment to become underutilized and/or unnecessary. Although Lockheed's rationale for not pursuing an option to lease desktop computers is understandable, Lockheed's concern about underutilized and unnecessary computer systems could be resolved by including an additional clause in the lease agreement that would permit Lockheed to terminate the lease agreement.

COMPUTER ACQUISITION COSTS

For the three-year period ending September 30, 1997, the

Department will have expended about $13.6 million for computer acquisitions at the Laboratory. Lockheed and the Department could significantly reduce future computer acquisition costs. As the audit showed, the Department could save about $550 per computer by adopting a more conservative desktop computer configuration. Additionally, by acquiring desktop computers through alternative sources of supply, the Department could save an additional $200 per computer. Based on the acquisition of 1,000 computer systems per year, this would amount to savings of approximately $750,000 per year. Further, additional costs could be saved if the Department limited Lockheed to purchasing desktop computers based on the standard configuration, unless the purchase is fully justified and approved beforehand. Finally, Lockheed's own analysis published in April 1996 showed that the Department could potentially save about $5 million over a ten-year period by leasing rather than continuing to purchase computers. Therefore, this alternate means of acquisition should also be considered in the future.

## PART III

## MANAGEMENT AND AUDITOR COMMENTS

Management concurred with the finding and recommendations presented in the initial draft report. Management and auditor comments on specific recommendations follow.

### Recommendation 1

Management Comments. Management concurred with the recommendation to establish and implement a more conservative standard configuration for computers. Specifically, management stated that emerging software applications and programs require significantly greater computing power and capabilities. However, management added, the speaker systems have been eliminated and Idaho will request Lockheed to change its standard of 17-inch monitors and acquire a 17-inch or larger monitor only when justified.

Auditor Comments. Management comments are responsive to the recommendation.

### Recommendation 2

Management Comments. Management concurred with the recommendation to identify and use alternative sources of supply. Management explained that the award was made to a local vendor based on total value received. Management also stated that the local vendor adds value to Lockheed's desktop computer acquisitions by providing many services, including configuration, diagnostic testing, scheduled delivery, and non-warranty related telephone support. However, management stated that any future personal computer procurements will consider alternative sources of supply.

Auditor Comments. Management comments are responsive to the recommendation.

Recommendation 3

Management Comments. Management concurred with the recommendation to evaluate the feasibility of leasing rather than purchasing computers and, if practicable, implement the results of that evaluation. According to management, Lockheed examined in Fiscal Year 1996 the possibility of leasing computers. Lockheed determined that no commitment could be made at that time based on unknown staffing levels, desktop computer configuration requirements, and quantities needed to continue supporting Laboratory mission operations. Since 1996, staffing levels, desktop computer configuration requirements, and quantities needed to continue supporting Laboratory mission operations have become known. Therefore, Idaho will request Lockheed to initiate another lease study for future computer acquisitions.

Auditor Comments. Management comments are responsive to the recommendation.

## PART IV

## APPENDIX

### Summary of Related Office of Inspector General Audit Reports

Listed below are prior OIG audit reports on acquisition issues related to automated data processing equipment.

WR-B-96-06, Audit of Bonneville Power Administration's Management of Information Resources, April 1996

The audit reported that improvements could be made in implementing credit card and property procedures for computer related equipment. For example, almost 43 percent of a sample of credit card purchases were made by employees whose authority to buy computer-related equipment was not documented properly and inventory reports showing shortages were not being followed up on a timely manner. Additionally, unused equipment was not being redistributed.

AP-B-95-01, Audit of Management and Control of Information Resources at Sandia National Laboratories, November 1994

The audit reported that inefficiencies and weaknesses existed in Sandia's acquisition, use, and control of computer resources, and in the protection of computer-processed information.

WR-B-94-4, Audit of Computer Maintenance at Lawrence Livermore National Laboratory June 1994

The audit showed that Lawrence Livermore National Laboratory used extended warranty subcontracts, rather than more economical and efficient time and materials subcontracts for computer maintenance, which cost about $437,000 more than necessary over a 6-month period. Further, the Department's Oakland Operations Office did not ensure that Livermore identified and selected the

most economical and efficient approach for computer maintenance.

WR-B-94-5, Audit of Implementation of Long Range Plans to Reduce Computer Support Costs at Lawrence Livermore National Laboratory, September 1994

The audit disclosed that Lawrence Livermore National Laboratory maintained and operated a mainframe and six more computers in its Administrative Information Systems Center rather than acquiring and using more economical and efficient workstations. Further, the Department's Oakland Operations Office did not ensure that Livermore evaluated the Administrative Center's long-range computer plans for economy and efficiency.

WR-B-93-02, Audit of Computer Equipment Maintenance at Los Alamos National Laboratory, June 1993

The audit showed that Los Alamos maintained service contracts which covered retired computer equipment and used in-house facilities to repair computer equipment already covered by a manufacturer's warranty.

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