
U.S. Department of Energy
Office of Inspector General
Office of Audit Services

# Audit Report

## Facility Contractor Acquisition and Management of Information Technology Hardware

DOE/IG-0768

June 2007

# Department of Energy

Washington, DC 20585

June 22, 2007

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Audit Report on "Facility Contractor Acquisition and Management of Information Technology Hardware"

## BACKGROUND

The Department of Energy relies heavily on information technology (IT) to accomplish its science, weapons, energy supply and environmental mission objectives. In the past three years, the Department has spent more than $400 million on IT hardware to facilitate these efforts. Items routinely acquired by the Department included desktop and laptop computers and associated peripherals, personal digital assistants, and network infrastructure equipment.

Prior Office of Inspector General audits have disclosed numerous problems with the Department's management of IT resources. For example, our report on *Management of the Department's Desktop Computer Software Enterprise License Agreements* (DOE/IG-0718, January 2006) found that the Department spent more than necessary to acquire and maintain software due to the lack of a complex-wide acquisition and maintenance strategy. Similarly, our review of *Information Technology Support Services at the Department of Energy's Operating Contractors* (DOE/IG-0725, April 2006) determined that, had a complex-wide acquisition strategy been used to obtain support services, the Department could have achieved significant savings. Because of its sizeable investment in this area, we initiated this audit to determine whether the Department had effectively managed its acquisition and control of IT hardware.

## RESULTS OF AUDIT

Our review established that certain Department of Energy facility contractors had not adequately managed the acquisition and control of IT hardware. A number of contractors had not consistently taken advantage of opportunities to reduce acquisition and support costs, addressed security concerns related to certain aging systems, or ensured that accountability was maintained over sensitive computers and devices. In particular, we observed that:

- Five of the seven sites we reviewed had not developed or fully implemented hardware specifications and brand standards for computers and related peripherals, directly contributing to unnecessary expenditures of at least $4.7 million over a three-year period;

- Widely divergent hardware replacement cycles contributed to problems ranging from supporting outdated computers to replacing equipment before the end of its service life;

- Sites had not always taken advantage of opportunities to achieve volume purchase discounts. For example, one contractor acquired computers from 96 different vendors – many without competition; and,

- Several sites did not track certain sensitive IT equipment, including laptop computers and personal digital assistants.

These problems occurred because the Department had not developed a coordinated approach to IT hardware acquisition, management, and control. In particular, the Department had not implemented corporate-level standards for hardware nor had it required contractors to adopt or adhere to locally-developed standards. Acquisition strategies for IT hardware, designed to take advantage of savings available through volume purchases or consolidated buying opportunities, had not been deployed. In addition, the sites reviewed had not established centralized mechanisms for approving purchases or adopted a consistent and effective approach for maintaining accountability over IT hardware.

Without improvements in the acquisition and control of IT hardware, issues such as those identified during our review could result in the unnecessary expenditure of funds to the detriment of program operations. The failure to maintain accountability over computers and other sensitive assets could also increase the risk of misuse, theft, or other diversion of Government property. Proper inventory controls are critical to maintaining effective accountability over information technology hardware, particularly in light of the recent disclosure that the Department could not account for over 1,400 laptops either lost, stolen or misplaced over the past six years.

To its credit, the Department had taken action to establish hardware standards at Headquarters through its Department of Energy Common Operating Environment. In addition, we noted that certain contractors have worked together to establish purchasing agreements for selected items of IT hardware. These are positive steps, but additional action is required. As such, we made several recommendations designed to increase the efficiency and effectiveness of the Department's hardware acquisition and management process.

MANAGEMENT REACTION

Management concurred that action is necessary to improve the Department's practices for acquiring commodity-type IT hardware and indicated that it plans to take certain actions relative to the recommendations in our report. In particular, management indicated that one of the actions to be taken in response to our report will be to develop guidance that encourages aggregation of requirements for IT hardware intended to lead to cost savings.

In addition, a review will be performed to determine the need for strengthened requirements over IT asset management.

In separate comments, the National Nuclear Security Administration (NNSA) indicated that it did not concur with several of our recommendations; however, it provided details of alternative actions that will be taken which are consistent with our recommendations. For example, NNSA management noted that its facility contractors recently agreed to work cooperatively using common procurement tools in the development of complex-wide acquisition vehicles for common commodities. In addition, minimum hardware configurations developed by the Department will be made available to contractors for their consideration. Management's comments are included in Appendix 4.

Attachment

cc: Deputy Secretary
Acting Administrator, National Nuclear Security Administration
Acting Under Secretary for Energy
Under Secretary for Science
Chief Information Officer
Chief of Staff

# REPORT ON FACILITY CONTRACTOR ACQUISITION AND MANAGEMENT OF INFORMATION TECHNOLOGY HARDWARE

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## Hardware Acquisition and Control

The Department of Energy's (Department) facility contractors had not always adequately managed the acquisition and accountability of its information technology (IT) hardware. Although critical to controlling acquisition and support costs, we noted that standards for hardware specifications and brands, acquisition practices, and equipment replacement rates had not been developed or were not completely effective. Controls over accountability for certain computers and other sensitive equipment were also inadequate.

### Hardware Standards

Facility contractors at the seven sites reviewed had not always developed or fully implemented standard hardware specifications – such as brand, processing speed, and memory capacity – for computers and related peripherals. As demonstrated by a recent Department of Defense (DOD) initiative, decreasing the number of hardware brands and configurations can result in significant reductions in acquisition and support costs (cost avoidance at DOD of $53 million in 2004 and 2005).

At five of seven sites, brand standards had not been fully developed for computers and peripherals. Absent such standards – based on our review of purchases made during Fiscal Years (FY) 2003 through 2005 – we found that desktop and laptop computers were acquired from at least 70 different manufacturers at the seven sites reviewed. For example, although Lawrence Berkeley National Laboratory (Berkeley) established recommended brands for desktop and laptop computers, purchasers did not follow the recommendation for about 62 percent of the computers acquired during FY 2005. As generally accepted by industry officials, elimination of multiple brands of IT hardware has the potential to significantly reduce annual support costs.

We also noted that despite having similar missions, standard configurations and the ultimate price paid for computers for the three National Nuclear Security Administration (NNSA) national laboratories reviewed – Sandia, Lawrence Livermore National Laboratory (Livermore), and Los Alamos National Laboratory (Los Alamos) – varied widely. For example, the price of the

high-end standard configuration of one brand of computer ranged from $1,825 at Livermore to $3,743 at Sandia. Absent firm standards, average desktop acquisition costs – when applied to the approximately 32,000 desktops purchased over a recent three-year period – amounted to an overall variance of about $3.4 million in acquisition costs.

Problems with adhering to standards were not limited to NNSA sites, but also affected organizations managed by the Office of Science (Science). For example, while the Oak Ridge National Laboratory (ORNL) had established configuration standards for desktops and laptops, we observed that these standards were rarely used. Even though the site Chief Information Officer (CIO) estimated that one-half of the employees were candidates for standardized computers, we found that nearly all of the 522 desktop and laptop computers that we reviewed at ORNL exceeded current locally established standards. While the price of standardized laptops at the site ranged from $1,216 to $1,499, the average price paid was actually $2,246, or 50 percent more than permitted by ORNL standards. Purchases of non-standard computers and devices at ORNL resulted in the unnecessary expenditure of about $1.2 million. Similarly, we noted that the average price paid for the recommended brand of desktop at Berkeley was $1,656 – about 33 percent more than the site's suggested cost for a standard computer.

Additionally, four of the sites reviewed had not developed standards for peripherals and acquired a wide range of devices, often at disparate prices. For example, Los Alamos acquired at least 60 different types of portable storage devices, including various flash drives and portable music players. The site acquired various types of flash drives in FY 2005 with the same storage capacity, but with prices that ranged from $68 to $252 per unit, contributing to unnecessary expenditures of about $93,000 at the sites reviewed in just that one year. At Livermore, brand standards for peripherals had not been developed and the site acquired at least 17 different brands of printers. In contrast, a similar site only utilized four different printer brands.

## Acquisition Practices

Sites reviewed had not always developed and implemented acquisition standards or centralized mechanisms designed to minimize the cost associated with acquiring IT hardware. For example, Berkeley officials stated that organizational units were not required to compete purchases under $10,000, and that they used that authority to acquire computers from a variety of different vendors. During the three-year period we reviewed, Berkeley purchased desktop and laptop computers from at least 96 different vendors – a practice that effectively prevented it from taking advantage of volume discounts. While ORNL had established a hardware acquisition program, numerous hardware purchases were made outside of the system. In particular, the site acquired hardware through separate purchase agreements and by using credit cards, acquisition techniques that were not governed by agreed-upon standards and which did not permit the buyer to obtain quantity purchase discounts. In contrast, the Y-12 National Security Complex (Y-12) required that the CIO review all hardware acquisitions to ensure compatibility with existing standards and purchase agreements.

The lack of common acquisition standards or negotiated buying opportunities for peripheral devices also contributed to unnecessary expenditures. For example, sites reviewed spent $1 million more than necessary for computer monitors in FY 2005 by paying varying prices for the same or similar monitors. We also observed that two sites paid between $100 and $460 for the same portable storage device obtained within a three-month period. These issues, similar to those described in several information technology-related Office of Inspector General reports, highlight the fact that the Department's limited use of bulk purchase agreements for IT products and services negatively impacts its ability to leverage buying power and reduce costs.

## Hardware Replacement

Despite a FY 2000 Department-sponsored study and industry best practices, six of the seven facility contractors included in our review had not established standard cycles for replacing IT hardware and had widely varying frequencies of hardware replacements that frequently differed from industry standards. At Y-12, for example, the

current computer replacement frequency was almost 10 years, more than double the recommended industry standard. Site officials estimated that this resulted in 16 percent of the computers being obsolete, a situation that made it difficult for them to control maintenance costs and eliminate or reduce security vulnerabilities. In contrast, the average replacement rate of a computer at Sandia was three years.

Additionally, the Savannah River Site (Savannah River) was the only site reviewed that chose to lease IT hardware. While this may be a cost-effective approach to maintaining desktop and laptop computers, the approach is not cost effective for peripherals such as monitors. In particular, the site incurred up to $2 million in excess expenditures over the last three years by replacing its computer monitors more frequently than necessary. Although industry experts estimate a seven year useful life for monitors, Savannah River's replacement under the current lease agreement occurred every three years, well short of the expected life. As noted in the Department-sponsored study, establishing a standard technology replacement rate can enhance standardization and help optimize costs.

Inventory Control

Despite a number of past problems and recommendations for corrective actions, our review disclosed that contractors were not consistently or effectively maintaining accountability over assets. Specifically, not all of the sites reviewed tracked computers until disposition. Rather, Berkeley and Sandia officials stated that equipment is generally removed from their inventory systems after five years regardless of whether the hardware was still in use and with no consideration for the type of information contained on the computers. Such practices increase the risk that lost or stolen systems containing sensitive or personal information will not be identified during the inventory process.

Thresholds for tracking hardware also varied widely at the sites reviewed, including the requirements for tracking equipment which could potentially contain sensitive information such as desktops, laptops, and personal digital assistants. For example, even though Sandia reported losses of 249 computers and other high risk devices between FYs 2003 and 2005, the Department permitted the

site to track only those items costing over $1,000. Setting this threshold effectively excluded more than 500 computers and 3,100 personal digital assistants from inventory tracking. This practice was especially troubling given that the site reported the highest percentage of missing items of any site reviewed and the recent emphasis by the Office of Management and Budget for ensuring security over mobile devices. In addition, at Savannah River, contractors were also not required to account for certain sensitive peripheral equipment if the value was less than $5,000 – more than 10 times the threshold used at most sites.

**Hardware Acquisition and Control Approach**

These problems occurred because the Department had not developed a coordinated approach to facility contractor IT hardware acquisition and control. In particular, corporate-level standards for hardware had not been developed and contractors were not always required to adopt or adhere to locally-developed standards. Additionally, contractors were not required to coordinate hardware purchases, utilize centralized authorities to approve IT purchases, or adopt a consistent approach to maintaining accountability over IT hardware.

The Department had not required the development and implementation of either complex-wide or site-specific IT hardware standards. Although standards were developed as part of the Department of Energy Common Operating Environment at Headquarters, they had not been expanded to facility contractors in the field – organizations that account for about 87 percent of the Department's workforce. Similarly, users were not always required to comply with existing site standards. For instance, hardware standards were routinely not enforced at ORNL.

Furthermore, the Department had not developed and implemented polices requiring coordination of IT hardware purchases both within sites and across the complex to take advantage of opportunities for volume discounts. Specifically, acquisition authority, including IT approval and funding authority, remained decentralized at most of the sites reviewed. For instance, neither the site CIO's nor acquisition officials were generally responsible for monitoring purchases to allow them to identify the types and costs of hardware being acquired. The impact of such practices was observed at ORNL and Berkeley where

organizations regularly acquired various hardware using purchase cards and other methods that did not permit buyers to obtain available discounts.

Although facility contractors had negotiated agreements for certain products through the Integrated Contractor Purchasing Team (ICPT), sites were not required to use them. For instance, the primary official responsible for overseeing the ICPT stated that it was difficult to obtain the lowest prices from vendors without mandatory participation from all sites because a consistent volume of purchases could not be ensured. We also noted that the ICPT had not established a complex-wide agreement for a particular brand of hardware despite expenditures of more than $27 million over the past three years. Similar opportunities also existed for establishing agreements for other brands of IT hardware used by the Department. As noted in our recent report on *Information Technology Support Services at the Department of Energy's Operating Contractors* (DOE/IG-0725, April 2006), significant savings can be realized if the Department develops and implements a complex-wide IT acquisition strategy.

Also, inconsistent implementation of inventory control procedures contributed to sensitive equipment not being effectively tracked throughout its lifecycle. Despite the findings and recommendations included in our report on *Management of Sensitive Equipment at Selected Locations* (DOE/IG-0606, June 2003), the Department permitted field sites to set their own thresholds for the type of hardware being inventoried. Although Department policy stresses the importance of controlling sensitive items such as desktops, laptops, and personal digital assistants regardless of value, the policy also permits local officials to exclude such highly attractive items from inventory procedures, even though these items can be easily pilfered and have the capability to contain significant amounts of sensitive information. Conflicting policy such as this makes it difficult to ensure that sites are maintaining effective control over attractive hardware

**Opportunities for Savings**

Without improvements, the Department will continue to spend more than necessary acquiring IT hardware and face difficulty ensuring accountability over certain high-risk equipment. Specifically, the Department could potentially

realize savings of about $16.6 million over the next five years at the sites reviewed by better controlling hardware costs and implementing standards for certain equipment (see Appendix 2 for details). The Department also had an increased risk of unidentified theft of hardware and information by not requiring accountability for all highly attractive items, such as less expensive desktops and laptops, personal digital assistants, and certain other IT hardware. With the potential for significant cost savings and improved accountability, we believe it is vital that the Department act to more effectively manage its hardware acquisition and control processes across the complex.

## RECOMMENDATIONS

To address the issues identified in this report, we recommend that the Administrator, NNSA, and the Under Secretaries for Energy and Science, coordinate with the Department's and NNSA's Chief Information Officers to:

1. Develop and implement hardware standards and related replacement policies, as appropriate, and utilize such standards as a basis for streamlining acquisitions;

2. Ensure that hardware purchases are coordinated between Headquarters and field sites, to include consideration of enterprise agreements, where appropriate;

3. Develop and implement consistent asset management policies for maintaining accountability over IT hardware; and,

4. Implement mechanisms to effectively monitor and control the cost of IT hardware purchases.

## MANAGEMENT REACTION

Management concurred that action is necessary to improve the Department's practices for acquiring commodity-type IT hardware and indicated that it plans to take certain actions relative to the recommendations in our report.

Specifically, the Department plans to develop guidance that encourages aggregation of requirements for IT hardware intended to lead to cost savings through economies of scale. Management also plans to explore the establishment of

enterprise agreements for IT hardware that can be utilized by facility contractors. In addition, management agreed that accountability must be maintained over IT hardware through consistent asset management and noted that a review will be performed to determine the need for additional policy development and implementation relevant to this area.

The NNSA indicated that the Department's CIO established a desktop minimum hardware configuration that will be made available to contractors for their consideration. However, NNSA officials did not agree that implementing universal hardware standards complex-wide will necessarily result in cost benefits. NNSA management also noted that its facility contractors recently agreed to work cooperatively using common procurement tools in the development of complex-wide acquisition vehicles for common commodities. Officials believed that this effort will assist in monitoring and controlling the costs of IT hardware. In addition, management indicated that consistent policies are in place for maintaining accountability over IT hardware.

**AUDITOR COMMENTS**

Management's comments are generally responsive to our recommendations. We are encouraged that the Department plans to explore opportunities for establishing IT hardware enterprise agreements, as we continue to believe that such agreements with certain vendors will assist in reducing the overall cost of acquisition.

We are hopeful that the NNSA's new strategic sourcing effort could, when completely implemented, reduce overall costs of IT hardware acquisition. We disagree, however, with the NNSA's assertion that developing and implementing hardware standards will not necessarily lead to cost savings. As noted in the body of the report, we identified several examples of cost savings that could be achieved through the development and application of common standards. We also disagree with the NNSA's assertion that it has implemented consistent policies for maintaining accountability over IT hardware. Specifically, as noted in the report, Sandia was permitted to exclude certain sensitive equipment from its inventory process, a practice that is inconsistent with other NNSA sites reviewed.

Management's comments are included in their entirety in Appendix 4.

## Appendix 1

**OBJECTIVE**

To determine whether the Department of Energy (Department) had effectively managed its acquisition and control of information technology hardware.

**SCOPE**

The audit was performed between December 2005 and March 2007 at Department Headquarters in Washington, DC, and Germantown, MD; the Lawrence Livermore National Laboratory, Livermore, CA; the Lawrence Berkeley National Laboratory, Berkeley, CA; the Oak Ridge National Laboratory and the Y-12 National Security Complex, Oak Ridge, TN; the Sandia National Laboratories and the National Nuclear Security Administration (NNSA) Service Center, Albuquerque, NM; and the Savannah River Site, Aiken, SC. We also obtained information from the Los Alamos National Laboratory, Los Alamos, NM.

**METHODOLOGY**

To accomplish our objective, we:

- Reviewed applicable laws and regulations pertaining to acquisition and maintenance of information technology hardware, as well as guidance issued by the Office of Management and Budget;
- Reviewed reports issued by the Office of Inspector General;
- Reviewed numerous documents related to the Department's management of hardware acquisition and maintenance activities;
- Held discussions with program officials and personnel from Department Headquarters and field sites reviewed, including representatives from the Offices of the Chief Information Officer, Environmental Management, Office of Science, and Fossil Energy, as well as NNSA; and,
- Reviewed the *Government Performance and Results Act of 1993* and determined if performance measures had been established for managing hardware acquisition.

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 audit objective. Accordingly, we assessed internal controls regarding the acquisition and maintenance of hardware across the Department. 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 also assessed performance measures in accordance with the *Government Performance and Results Act of 1993* regarding acquisition and maintenance of software. We found that none of the seven field sites visited had established measures specific to achieving cost savings associated with hardware acquisition. While we did not rely solely on computer-processed data to satisfy our audit objective, we confirmed the validity of such data, when appropriate, by reviewing supporting source documents such as contracts and invoices.

The Office of the Chief Information Officer and the NNSA elected to waive the exit conference.

## POTENTIAL SAVINGS

To determine potential savings relevant to standardizing information technology (IT) hardware across the Department of Energy (Department), we compared the average costs paid for desktops and laptops at the three National Nuclear Security Administration laboratories reviewed, as well as the two Office of Science laboratories reviewed. Based on our calculations, we determined that the sites could save about $7.9 million over the next five years if hardware standards are implemented at sites with similar operational functions. In addition, had the Oak Ridge National Laboratory enforced standards for desktops and laptops for only one-half of its users, we determined that savings of $2 million could be realized. Further, we found that the development and implementation of standards for certain portable storage devices could result in savings of $464,275.

In addition, we calculated the savings that could be realized from effectively managing acquisition of IT hardware. Specifically, we reviewed information provided by Savannah River Site and compared this to industry estimates relevant to monitor life-cycles. Based on our review, we determined that the site could save about $1.1 million over the next five years by purchasing computer monitors rather than leasing new ones every three years. Additionally, we determined that the sites reviewed could save about $5 million over the next five years acquiring computer monitors at the lowest prices available through other existing agreements.

The table below details the possible savings the Department could realize over the next five years.

| Product | Identified Annual Savings | Potential Savings (5 years) |
|---|---|---|
| **Hardware Standards Savings** | | |
| Average Equipment Costs | $1,583,659 | $7,918,296 |
| ORNL Standardization | $409,457 | $2,047,285 |
| Portable storage devices | $92,855 | $464,275 |
| **Subtotal** | | **$10,429,856** |
| **Procurement-Related Savings** | | |
| Savannah River Monitor Lease | $228,738 | $1,143,692 |
| Monitor Purchases | $1,000,009 | $5,000,045 |
| **Subtotal** | | **$6,143,737** |
| **TOTAL** | **$3,314,718** | ***16,573,593** |

* *Reflects only potential savings at a limited number of the sites reviewed. We were unable to calculate Department-wide savings.*

## PRIOR REPORTS

### Office of Inspector General Reports

- *Information Technology Support Services at the Department of Energy's Operating Contractors* (DOE/IG-0725, April 2006). The Department of Energy (Department) continues to face challenges related to contractor procured or furnished information technology (IT) support services. The Department had not established a comprehensive framework to provide a corporate approach to providing IT support services that included contractor-managed sites. Furthermore, the Department did not require contractors to adopt other available methods for reducing costs such as coordinating with established consortium buying groups to consolidate demand and obtain volume discounts. Without improvements, the Department will be unable to realize potential cost savings at numerous contractor-managed sites.

- *Management of the Department's Desktop Computer Software Enterprise License Agreements* (DOE/IG-0718, January 2006). The Department had not adequately managed the acquisition and maintenance of desktop computer software licenses. While it did establish several enterprise agreements, it had not developed a complex-wide desktop software acquisition and maintenance strategy. Without improvements focused on increasing software management effectiveness, the Department may be unable to realize savings of at least $3.2 million over the next five years.

- *Management Challenges at the Department of Energy* (DOE/IG-0748, December 2006). The Office of Inspector General (OIG) identified seven significant management challenges facing the Department, including cyber security. In addition, the OIG identified a "watch list" of emerging issues that warrant continued attention. The report noted that although the Department had taken a number of positive actions in Fiscal Year 2006 relevant to cyber security, weaknesses still existed relating to establishing a complex-wide inventory of information systems and implementation of an effective certification and accreditation process.

- *Development and Implementation of the Department's Enterprise Architecture* (DOE/IG-0686, April 2005). The Department had not completely defined its current or future information technology requirements, such as desired systems, supporting applications and hardware, and technology standards. Without improvements, the Department may be unable to implement an effective corporate approach for managing information technology investments.

- *Management of Sensitive Equipment at Selected Locations* (DOE/IG-0606, June 2003). Management at specific sites was able to locate virtually all sensitive equipment selected during the review. However, Department officials had not ensured compliance with local guidance and best practices pertaining to control, tracking, and protection of sensitive property by contractors. Without improvements sites remain susceptible to misuse, theft, or other diversion of Government property.

**Department of Energy**
Washington, DC 20585

May 31, 2007

MEMORANDUM FOR RICKEY R. HASS
ASSISTANT INSPECTOR GENERAL
FOR FINANCIAL, TECHNOLOGY AND
CORPORATE AUDITS

FROM: THOMAS N. PYKE, JR.
CHIEF INFORMATION OFFICER

SUBJECT: Response to Inspector General's Draft Report, A06TG022, Facility Contractor Acquisition and Management of Information Technology Hardware

The Department of Energy has reviewed the Inspector General's Draft Report, A06TG022, Facility Contractor Acquisition and Management of Information Technology Hardware, dated March 23, 2007.

According to the Office of the Inspector General's (OIG) audit results stated in this Draft Report, certain facility contractors have not adequately managed the acquisition and control of IT hardware. The OIG concluded that the Department has not developed a coordinated approach to IT hardware acquisition, management and control. We appreciate the OIG's recognition that the Department has taken actions to establish hardware standards for headquarters, through the Department of Energy Common Operating Environment, DOECOE.

We concur that action is necessary to guide the Department to improve its practices for acquiring commodity-type IT hardware, such as personal computers and monitors. The Office of the Chief Information Officer (OCIO) plans to develop guidance for the Department that encourages aggregation of requirements for such equipment, for each site and across sites where possible. The guidance will focus on steps that can be taken to benefit from an economy of scale, where practical, while meeting user requirements. In addition, the guidance will provide input to the acquisition process that will assist in making IT hardware refresh decisions based on a full understanding of the life cycle factors that should be considered to ensure acceptable long-term performance at lowest long-term cost of ownership. In developing this guidance, OCIO intends to work closely with the National Nuclear Security Administration (NNSA) Administrator, the Under Secretaries for Energy and Science, and the Office of Management.

RECOMMENDATIONS

**Recommendation 1:** The OIG recommends that the Administrator, National Nuclear Security Administration (NNSA) and the Under Secretaries for Energy and Science, coordinate with the Department's CIO and the NNSA CIO to develop hardware standards and related refresh policies, as appropriate.

**Management Decision: OCIO will develop guidance for the Department that encourages aggregation of requirements for such equipment, intended to lead to cost savings through economies of scale where practical.**

The Office of the Chief Information Officer (OCIO) plans to develop guidance, working closely with the NNSA Administrator, the Under Secretaries for Energy and Science, and the Office of Management that encourages aggregation of requirements for commodity-type IT hardware equipment, for each site and across sites, where possible, so steps can be taken to benefit from economies of scale in acquisition and support, where practical, while meeting user requirements. In addition, the guidance will address IT hardware refresh decisions based on a full understanding of the life cycle factors that should be considered to ensure acceptable long-term performance at lowest long-term cost of ownership. The guidance will be prepared in the context of the Department's Enterprise Architecture management process. OCIO's intent is to complete preparation of this guidance within the next six months.

**Recommendation 2:** The OIG recommends that the Administrator, NNSA and the Under Secretaries for Energy and Science, coordinate with the Director, Office of Management; the NNSA Senior Procurement Executive; and the Department's and NNSA's Chief Information Officers to implement hardware standards and related refresh policies, and utilize such standards as a basis for streamlining acquisitions.

**Management Decision: OCIO will develop guidance for the Department that encourages aggregation of requirements for such equipment, intended to lead to cost savings through economies of scale where practical.**

The planned guidance is intended to support streamlined acquisition of commodity-type IT hardware, especially in the field, without unnecessarily constraining such acquisitions by specific standards that could quickly become obsolete in such a fast-moving technological area. Special consideration will also be given to the dynamics of marketplace pricing for acquisition of commodity-type IT hardware products to ensure that the Government is able to take advantage of marketplace reductions in price that sometimes occur in a relatively short time period for these types of products. Using this guidance, the NNSA Administrator and the Under Secretaries for Energy and Science would be in a better position to provide direction through appropriate contractual means to improve acquisition of such equipment by their field organizations.

**Recommendation 3:** The OIG recommends that the Administrator, NNSA and the Under Secretaries for Energy and Science, coordinate with the Director, Office of Management; the NNSA Senior Procurement Executive; and the Department's and NNSA's Chief Information

Officer to ensure that hardware purchases are coordinated between Headquarters and field sites, to include consideration of enterprise agreements, where appropriate.

**Management Decision: OCIO will develop guidance for the Department that encourages aggregation of requirements for such equipment, intended to lead to cost savings through economies of scale where practical.**

We believe that the development and use of appropriate guidance will motivate improved acquisition practices at headquarters and at field sites for commodity-type IT hardware, but that it is unlikely that enterprise agreements will have the same positive effect on reducing commodity-type IT hardware costs as do enterprise software agreements, including SmartBuy. This concern is raised because of expected practical problems of establishing and maintaining effective agreements in the face of fast-changing technology and resulting continual improvements in performance/cost in this marketplace. OCIO will, however, explore the possible use of enterprise agreements for commodity-type IT hardware similar to those in place for software, in which the enterprise agreements would be available for consideration by DOE facility contractors, as appropriate, to meet their requirements.

**Recommendation 4:** The OIG recommends that the Administrator, NNSA and the Under Secretaries for Energy and Science, coordinate with the Director, Office of Management; the NNSA Senior Procurement Executive; and the Department's and NNSA's Chief Information Officer to develop and implement consistent asset management policies for maintaining accountability over IT hardware.

**Management Decision: Concur**

The Department agrees it must maintain accountability over IT hardware through consistent asset management policies. The Draft Report indicates that several sites have not maintained accountability for a substantial volume of IT hardware through consistent asset management, in compliance with Departmental policy.

The Department agrees that an asset management challenge exists arising from a failure to comply with existing policy. The Department believes that its asset management policies for maintaining accountability over IT hardware are adequate, based upon the results of the OIG audit. However, compliance remains an issue. The NNSA Administrator and the Under Secretaries for Energy and Science in coordination with the Department's and NNSA's Chief Information Officers, in consultation with the NNSA and DOE Senior Procurement Executives, will perform a review to determine any need for additional policy development and implementation, and take necessary corrective actions to ensure compliance with DOE Property Management policy.

**Recommendation 5:** The OIG recommends that the Administrator, NNSA and the Under Secretaries for Energy and Science, coordinate with the Director, Office of Management; the NNSA Senior Procurement Executive; and the Department's and NNSA's Chief Information Officers to implement mechanisms to effectively monitor and control the cost of IT hardware.

**Management Decision: Concur**

The development and application of the planned guidance that encourages aggregation of requirements for commodity-type IT hardware equipment is intended to provide cost savings through economies of scale where practical. The NNSA Administrator and the Under Secretaries for Energy and Science will coordinate with the Department's and NNSA's Chief Information Officers in consultation with the NNSA and DOE Senior Procurement Executives, to review current policies, processes, and procedures for acquisition of commodity-type IT hardware, as well as best practices within the DOECOE Program and other IT support programs, to determine if additional actions are indicated.

**Department of Energy**
**National Nuclear Security Administration**
Washington, DC 20585

May 7, 2007

MEMORANDUM FOR Rickey R. Hass
Assistant Inspector General
for Financial, Technology, and Corporate Audits

FROM: Michael C. Kane
Associate Administrator
For Management and Administration

SUBJECT: Comments to Draft Report on Contractor Acquisition and Management of Information Technology Hardware, A06TG022

The National Nuclear Security Administration (NNSA) appreciates the opportunity to review the Inspector General's (IG) draft report, "Facility Contractor Acquisition and Management of Information Technology Hardware." We understand that the IG conducted this audit to determine whether we had effectively managed our acquisition and control of Information Technology (IT) hardware.

NNSA offers the following comments to the report and the corresponding recommendations:

**To address the issues identified in this report, we recommend that the Administrator, NNSA and the Under Secretaries for Energy and Science, coordinate with the Department's CIO and the NNSA CIO to:**

1. **Develop hardware standards and related refresh policies, as appropriate.**

NNSA does not concur with the recommendation. If the recommendation is directed towards the Federal establishment, then the Department's Chief Information Officer is already taking the actions that are being recommended. A complex-wide desktop minimum hardware standard configuration is established. The documentation of the Federal standard desktop hardware standard configuration will be made available to contractors as a tool for their consideration in determining the most efficient and effective method in determining the overall least cost approach for that part of the contractor's operations that support

performance objectives. NNSA does expect our contractors to perform sound procurement practices including the assessment of commodities for the best procurement method. In fact, NNSA M&O contractors recently signed a memorandum of understanding whereby they agreed to work cooperatively using common procurement tools in the development of complex-wide acquisition vehicles for common commodities.

**We also recommend that the Administrator, NNSA and the Under Secretaries for Energy and Science coordinate with the Director, Office of Management; the NNSA Senior Procurement Executive; and the Department's and NNSA's Chief Information Officers to:**

While the wording of the recommendation is correct, NNSA believes that the recommendation, in this case, should be directed towards the major program elements so that the desires of the major program elements are not discounted. The references to the Office of Management, Senior Procurement Executive and Chief Information Officers can, therefore, be deleted. It is the major program elements that have the budgetary authority and management and oversight of the contract instruments.

2. **Implement hardware standards and related refresh policies, as appropriate, and utilize such standards as a basis for streamlining acquisitions;**

NNSA has taken the approach that a performance measure in NNSA contracts that rewards the contractor for good business practices will lead to more efficient, effective acquisitions regardless of the establishment of standards. The establishment of standards has to be written at such a level to allow individual sites the latitude to exercise IT procurements with small businesses or participate in strategic sourcing. To establish standards with any less flexibility means that cost benefits may not be a reality. NNSA does not agree that implementing universal hardware standards complex-wide will necessarily result in cost benefits or even act as a basis for streamlined acquisitions. Adherence to sound business practices following the concepts of strategic sourcing as outlined in our contractor's memorandum of understanding certainly will realize cost benefits

3. **Ensure that hardware purchases are coordinated between Headquarters and field sites, to include consideration of enterprise agreements, where appropriate;**

M&O subcontract consents are performed by each NNSA Site Office if the specific acquisition meets the established thresholds for subcontract reviews. HCA subcontract consent is required for larger subcontracts. NNSA expects each M&O to utilize strategic vehicles wherever possible. The memorandum of understanding between all NNSA M&O's will

facilitate the creation and utilization of complex-wide acquisition vehicles in addition to those developed by the ICPT and all M&O's have the requirement to participate in complex-wide strategic sourcing as part of their performance evaluation. Further coordination and review at the Headquarters level is not necessary.

4. **Develop and implement consistent asset management policies for maintaining accountability over IT hardware; and,**

NNSA has consistent policies in place for maintaining accountability over IT hardware. Since asset management is an integral step of Supply Chain Management, each of NNSA's contractors have approved acquisition and property management (which includes disposition) systems. These systems are approved by the Federal establishment and are reviewed, audited, and/or tested on a scheduled basis.

5. **Implement mechanisms to effectively monitor and control the cost of IT hardware purchases.**

This recommendation gives the reader the impression that control of costs must occur centrally. That would put NNSA's contractors into a 'compliance' environment when we are, in fact, moving into a Contractor Assurance System/management of risk environment. We believe that there will be a logical progression into cost effectiveness, cost efficiency as long as our contractors realize that it is beneficial to them to implement good business practices even if it means working with other laboratories and production facilities. NNSA has developed visibility into subcontract spend data and has begun to utilize the data to work hand-in-hand with the M&O contractors to identify commodities for strategic sourcing.

Should you have any questions related to this response, please contact Richard Speidel, Director, Policy and Internal Controls Management.

cc: David Boyd, Senior Procurement Executive
Linda Wilbanks, Chief Information Officer
Karen Boardman, Director, Service Center

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