



STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

January 10, 2012

Carter H. Strickland, Jr.
Commissioner
NYC Department of Environmental Protection
59-17 Junction Boulevard
Flushing, NY 11373

Re: Controls Over Computers
Report 2010-N-7

Dear Commissioner Strickland:

We audited the New York City Department of Environmental Protection (Department) to determine whether computers are adequately controlled and accounted for. This audit was performed in accordance with the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article III of the General Municipal Law. In general, we found managers have not placed enough priority on ensuring that these assets are properly controlled and appropriately used. Our report contains four recommendations to help your staff address these deficiencies.

Background

The Department is a New York City (City) agency that protects the environmental health, welfare, and natural resources of the City and its residents. The Department manages the City's water supply, 14 in-City wastewater treatment plants, as well as eight treatment plants upstate. The Department also implements Federal Clean Water Act rules and regulations, handles hazardous material emergencies and toxic site remediation, and oversees asbestos monitoring and removal. As the agency responsible for City's environment, the Department also regulates air quality, hazardous waste and noise. As of November 30, 2010, the Department had 5,822 full time employees in 20 separate bureaus that each have a unique role in carrying out the Department's responsibilities.

Results of Audit

The Department has spent considerable resources on the purchase of computers and computer-related equipment, including \$10.9 million spent between July, 1, 2009 and October 30, 2010 according to Department records. Although the Department certified in March 2010 that it had a sufficient inventory system and detailed records for non-capital assets like

computers, we found these assertions were not true. Instead, the Department does not maintain comprehensive inventory records, nor does it conduct a periodic physical inventory or routinely tag this equipment to identify it as Department property. At the time of our field visits, Department officials were unable to locate 10 percent of the 200 computers we selected for verification – although they subsequently located all but one. Furthermore, 36 (18 percent) of the 199 computers eventually located were not being used, but were found in storage – many still in their original packing. The unused computers had a value of \$25,000.

Inventory Systems and Inaccurate Certification of Controls

NYC Comptroller Directive #1 - Inventory (Directive #1) establishes requirements for the proper control of assets by New York City agencies. The Directive requires all City agencies to maintain adequate controls over inventory to ensure accurate recordkeeping of assets. Specifically, agencies are to maintain detailed records, perform physical inventories, and tag all non-capital assets such as computers. Each agency is also required to submit a Financial Integrity Statement, which represents a formal opinion about the adequacy of the agency's internal control structure, and to complete an accompanying internal control checklist.

The Department's March 2010, response to this Directive affirmed that its inventory control system is sufficient and that detailed records are maintained for non-capital assets. However, we found, with regard to computer equipment, these statements were not true. Specifically, Department managers do not maintain comprehensive inventory records, nor do they conduct periodic physical inventories of assets. Further, officials from eight of nine bureaus we sampled told us that they also do not tag equipment to identify City ownership. Although managers in the other bureau visited told us equipment should be tagged, our tests showed many items were not; and we found many untagged items in the ninth bureau. The individual responsible for completing the Department's response to this Directive explained that he relied on statements made to him by bureau officials, adding that in the future he will confirm this prior to responding. These weak management practices increase the risk that equipment may be misappropriated, or used for personal use outside of the Department, without detection.

Because the Department does not maintain a centralized list of all its computers, we requested computer inventory records from each of the 20 bureaus. Five of these units were unable to provide us with a list of the equipment assigned to their areas. We also reviewed the Department's purchasing records, which showed officials made 422 purchases of computers and computer-related equipment between July, 1, 2009 and October 30, 2010 totaling \$10.9 million. We selected 18 of these purchase orders totaling more than \$470,000, from which we identified 200 desktop or laptop computers to test whether these items were physically present and appropriately tagged. We focused much of our selection on the bureaus which were unable to provide us with an inventory listing.

When we made field visits to locate the 200 computers, officials at the respective bureaus were unable to find 20 of them because they had no detailed records about where they were assigned or located. After receiving our preliminary findings report, officials informed us that they had located 19 of the missing computers. However, because of the time that had elapsed, we cannot be assured that these computers were actually being used by Department staff for

appropriate activities at the time of our visit. In fact, we visited a location two separate times and officials were still unable to locate a sampled computer, which turned up weeks later. The 20th computer remains missing.

Unnecessary and Underutilized Equipment

Many of the computers sampled were not in use. Of the 199 computers that were ultimately located, 36 (18 percent) were in storage or otherwise not in use, many in still in their original packaging. We found these underutilized pieces of equipment at eight of the nine bureaus we visited. Together, these 36 computers had cost the Department over \$25,000 and had each been received at least three months prior to our review. One of these machines had been on hand for more than a year.

Department officials responded that, in some instances, equipment is ordered as part of large projects and its deployment can be delayed by other aspects of the project. However, because the price of computers often drops as newer models come onto the market, older models can easily become obsolete. Furthermore, unused equipment is more susceptible to loss and theft. For these reasons, the purchase of unneeded computer equipment should always be minimized.

Ensuring that Assets are Returned by Departing Staff

We also found that the Department needs to strengthen its practices to assure that Department-owned property, including computers, is returned by departing employees. To determine whether such equipment was returned, we randomly selected 30 employees whose employment ended between July 1, 2009 and June 30, 2010. We excluded staff who were deceased or had transferred to another New York City department. In total, 530 employees departed during this period. When employees leave, they are required to complete a Return of DEP Property form attesting that all City property, including computers and ID cards, has been returned. Only two of the 30 staff we selected filed the appropriate form. Department officials asserted that the other 28 did not file the form because they were not issued any Department equipment. However, because the Department does not maintain records of the assignment of computer equipment, they are unable to confirm whether these departing employees had been issued Department computers. Department officials agreed with the need to strengthen controls in this area.

Recommendations

1. Focus increased attention on ensuring that non-capital assets, such as computers and related equipment, are adequately protected from loss, theft or misuse by:
 - requiring that all such equipment be appropriately marked to identify City ownership;

- maintaining an appropriate inventory system that establishes responsibility and accountability for the assets by denoting the location of each item and the employee to whom it is assigned; and
 - monitoring the accuracy of, and compliance with, the system through periodic tests and physical inventories.
2. Determine whether any computers currently held in storage can be redeployed to fill needs in other areas.
 3. Refrain from purchasing additional equipment that is not necessary for current operations.
 4. Monitor equipment assigned to staff who leave Department employment and ensure that all items have been properly returned and accounted for.

Audit Scope and Methodology

We audited the Department's controls over computers for the period July 1, 2009 through March 4, 2011. To accomplish our audit objective, we interviewed Department officials, reviewed the New York City Comptroller's Directive #1 and the Department's established procedures, and analyzed documentation and data provided to us by the Department. We also made site visits to numerous Department offices throughout the State to locate Department purchased computer equipment. Our sampling methodology is described in the body of the report.

We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

As is our practice, we notify Agency officials at the outset of each audit that we will be requesting a representation letter in which agency management provides assurances, to the best of their knowledge, concerning the relevance, accuracy and competence of the evidence provided to the auditors during the course of the audit. The representation letter is intended to confirm oral representations made to the auditors and to reduce the likelihood of misunderstandings. Agency officials normally use the representation letter to assert that, to the best of their knowledge, all relevant financial and programmatic records and related data have been provided to the auditors. They further affirm either that the agency has complied with all laws, rules, and regulations applicable to its operations that would have a significant effect on the operating practices being audited, or that any exceptions have been disclosed to the auditors. However, officials at the New York City Mayor's Office of Operations have informed us that, as a matter of policy, mayoral agency officials do not provide representation letters in connection with our audits. As a result, we lack assurance from Department officials that all relevant information was provided to us during the audit.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

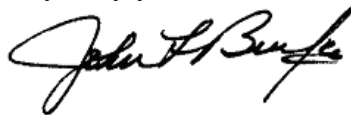
We provided a draft copy of this report to Department officials for their review and formal comment. Department officials agreed with our recommendations and detailed the actions they will take to implement them. This response is attached at the end of this report as Appendix A.

Within 90 days after final release of this report, we request that the Commissioner of the New York City Department of Environmental Protection report to the State Comptroller advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented the reasons why.

Major contributors to this report were Cindi Frieder, Myron Goldmeer, Daniel Raczynski, Nick Angel, Judy Grehl and Daphnee Sanon.

We wish to thank the management and staff of the Department of Environmental Protection for the courtesy and cooperation extended to our auditors during this audit.

Very truly yours,

A handwritten signature in black ink, appearing to read "John F. Buyce". The signature is fluid and cursive, with the first name "John" being the most prominent.

John F. Buyce, CPA, CIA, CGFM
Audit Director

cc: John Lento, DEP
George Davis, NYC Mayor's Office



October 14, 2011

Mr. John F. Buyce
Audit Director
State of New York
Office of the State Comptroller
110 State Street
Albany, NY 12236

Carter H. Strickland, Jr.
Commissioner
cstrickland@dep.nyc.gov

Re: Controls Over Computers, Report 2010-N-7

Dear Mr. Buyce:

Thank you for providing the working draft, dated September 14, 2011, of the State Comptroller's Audit of Controls Over Computers ("the Audit"), Report 2010-N-7, and for the opportunity to respond to the working draft. The Audit includes four recommendations to strengthen procedures, controls and accountability for the purchase, inventorying, distribution, monitoring, and disposition of equipment. As our detailed comments below indicate, DEP agrees with these recommendations.

1. *Focus increased attention on ensuring that non-capital assets, such as computers and related equipment, are adequately protected from loss, theft or misuse by:*
 - *requiring that all such equipment be appropriately marked to identify City ownership;*
 - *maintaining an appropriate inventory system that establishes responsibility and accountability for the assets by denoting the location of each item and the employee to whom it is assigned; and*
 - *monitoring the accuracy of, and compliance with, the system through periodic tests and physical inventories.*

We agree with this recommendation. First, in order to establish the current baseline and develop a set of procedures that address all of the current gaps, DEP will conduct a detailed assessment of information technology (IT) asset management practices within each bureau. In this assessment, which will address all of the critical steps in the life-cycle of IT assets, we will:

- Identify within each bureau the personnel and resources that procure, track, and dispose of IT assets.
- Analyze the current process (or the absence of a process) that each bureau follows for IT asset management, including:
 - Initial requisition;
 - Receipt and inventorying of the asset;
 - Assignment to an individual end user;

- Ongoing tracking of the asset, including any reassignment to a different end user; and
 - Retirement, disposition, and relinquishment of the IT asset.
- Analyze the current IT asset inventory, utilization, and reserve requirements. (This will also help us to address recommendations No. 2 and No. 3 below).

Second, we will analyze industry best practices for IT asset management to determine their applicability to our needs. In this analysis, we will:

- Determine the organizational structure necessary to best manage IT assets.
 - IT asset management roles & resource requirements
 - Insourcing vs. outsourcing
- Utilize IT service asset and configuration management processes within the Information Technology Infrastructure Library (ITIL), known for the best-practices for IT service management (ITSM) that focuses on aligning IT services with the needs of the business.
- Evaluate existing tools and vendors that are currently on the market to manage IT assets throughout their life-cycle.

Third, we will propose a detailed implementation plan for IT asset management within DEP. The proposal will include:

- Overall scope, schedule and budget;
- Organizational structure;
- IT asset management process;
- Implementation and rollout plan; and
- Change management and training plan.

We will complete the above activities by the end of February 2012.

2. Determine whether any computers currently held in storage can be redeployed to fill needs in other areas.

We agree with this recommendation. As part of the assessment and implementation described above, we will establish appropriate inventory levels that achieve the right balance between minimizing the number of computers in storage and maintaining an adequate stock of computers to fulfill unplanned needs for either replacement or new initiatives. Of the 36 stored computers identified in the audit, 34 (94%) have since been deployed to their end users as had been planned. The remaining two are being reserved for an office relocation that will be implemented shortly.

3. Refrain from purchasing additional equipment that is not necessary for current operations.

We agree with this recommendation. Please see the explanation for Recommendation No. 2 above. We will determine the economic inventory level necessary to support the unplanned deployment of computers. That, combined with an economic ordering policy to cover planned

needs for both normal replacement and new initiatives, should minimize the number and duration of computers in storage.

4. Monitor equipment assigned to staff who leave Department employment and ensure that all items have been properly returned and accounted for.

We agree with this recommendation. In accordance with Agency policy, at the time of an employee's separation, a Return of Property Form is to be signed by the departing employee, verified and signed by the employee's supervisor, and submitted to the employee's Bureau Administrator. This document must be attached to the DEP-2 form that is submitted to Human Resources to effectuate the employee's separation. We most recently reminded employees of this procedure in a memorandum to Bureau Administrators on April 28, 2011. A copy of the Return of Property Form will be forwarded to the Office of Information Technology. In addition, we will strengthen the practice related to departing employees to withhold the employee's final paycheck until all DEP equipment has been properly returned and certified.

I want to thank the State Comptroller for this audit and its recommendations. DEP is committed to improving efficiency and accountability in order to provide our customers with drinking water and wastewater services at the lowest possible rates. Implementing the four recommendations above will help us to achieve that goal.

Very truly yours,



Carter H. Strickland, Jr.

Cc: George Davis, NYC Mayor's Office of Operations