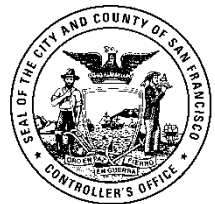# SAN FRANCISCO PUBLIC UTILITIES COMMISSION:

Water Enterprise Should Continue To Improve Its Inventory Management

April 12, 2011

CONTROLLER'S OFFICE
CITY SERVICES AUDITOR

The City Services Auditor was created within the Controller's Office through an amendment to the City Charter that was approved by voters in November 2003. Under Appendix F to the City Charter, the City Services Auditor has broad authority for:

- Reporting on the level and effectiveness of San Francisco's public services and benchmarking the city to other public agencies and jurisdictions.
- Conducting financial and performance audits of city departments, contractors, and functions to assess efficiency and effectiveness of processes and services.
- Operating a whistleblower hotline and website and investigating reports of waste, fraud, and abuse of city resources.
- Ensuring the financial integrity and improving the overall performance and efficiency of city government.

The audits unit conducts financial audits, attestation engagements, and performance audits. Financial audits address the financial integrity of both city departments and contractors and provide reasonable assurance about whether financial statements are presented fairly in all material aspects in conformity with generally accepted accounting principles. Attestation engagements examine, review, or perform procedures on a broad range of subjects such as internal controls; compliance with requirements of specified laws, regulations, rules, contracts, or grants; and the reliability of performance measures. Performance audits focus primarily on assessment of city services and processes, providing recommendations to improve department operations.

We conduct our audits in accordance with the Government Auditing Standards published by the U.S. Government Accountability Office (GAO). These standards require:

- Independence of audit staff and the audit organization.
- Objectivity of the auditors performing the work.
- Competent staff, including continuing professional education.
- Quality control procedures to provide reasonable assurance of compliance with the auditing standards.

Audit Team: Elisa Sullivan, Audit Manager
              Stephen Flaherty, Associate Auditor
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City and County of San Francisco
Office of the Controller – City Services Auditor

Purpose of the Audit

As part of the City Services Auditor's (CSA) Annual Audit Plan, this audit was conducted to determine whether the San Francisco Public Utilities Commission (SFPUC) Water Enterprise (Enterprise) has standardized and consistent inventory processes and controls over its warehouses, and that those processes and controls are adequate to ensure that materials, supplies, and tools are accurately accounted for, adequately organized, and properly secured.

Highlights

In general, the SFPUC's Enterprise has mostly adequate processes and controls over its three warehouses at the City Distribution Division (CDD), Hetch Hetchy Water and Power (HHWP), and Water Supply and Treatment (WS&T). All three warehouses have completed warehouse inventory policies and procedures, audit test counts revealed low dollar error rates, and walkthroughs of the three warehouses revealed well organized inventory and secure premises.

However, the Enterprise should continue to improve its inventory processes and controls. The audit found that:

- The Enterprise should consider using staff knowledgeable about inventory to conduct year-end inventory counts.

- Warehouse fuel inventory is inaccurate because the fuel system does not properly interface with MAXIMO, the Enterprise's asset management and work-order system.

- Warehouses do not fully utilize MAXIMO to track items issued from inventory.

- Warehouses do not ensure the accuracy of information taken from inventory issue forms that is entered into MAXIMO.

- WS&T does not have sufficient staff to ensure proper segregation of duties.

- Warehouses need to improve their tool management.

- CDD's inventory bin locations were not all properly labeled.

Recommendations

The audit report includes 13 recommendations for the SFPUC's Water Enterprise to improve its inventory management.

Specifically, the Enterprise should:

- Conduct an annual inventory with count teams consisting of warehouse staff and SFPUC Finance staff.

- Work with SFPUC's Information Technology unit to resolve discrepancies in fuel inventory between the fuel system and MAXIMO.

- Implement an electronic inventory issue process.

- Reconcile daily the *Issued from Stores* forms with MAXIMO issue reports.

- Implement additional supervisory review of WS&T operations.

- Better manage tools by conducting complete annual inventories. Develop policies and procedures for tool management.

- Ensure all bin locations at CDD are properly labeled.

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CITY AND COUNTY OF SAN FRANCISCO

OFFICE OF THE CONTROLLER

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April 12, 2011

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President, Members, and Mr. Harrington:

The Controller's Office, City Services Auditor (CSA), presents its audit report of the San Francisco Public Utilities Commission (SFPUC) Water Enterprise (Enterprise) warehouse and inventory processes and controls. The audit objectives were to determine whether the Enterprise has standardized and consistent inventory processes and controls over its warehouses to ensure that materials, supplies, and tools are accurately accounted for, adequately organized, and secured from loss and theft.

The audit team concluded that, although the Enterprise has mostly adequate processes and controls over its warehouses, SFPUC could improve its inventory management through more efficient annual inventory counts; working with SFPUC's Information Technology unit to ensure that its asset management and work-order system (MAXIMO) reflects accurate fuel inventory; increased use of MAXIMO's capabilities; and, better tool management practices. The audit includes 13 recommendations for the Enterprise to improve its inventory management practices.

The Enterprise's response to the audit is attached as Appendix B. CSA will follow up with the SFPUC on the status of the recommendations made in this report.

CSA appreciates the assistance and cooperation that the SFPUC's staff provided to us during the audit.

Respectfully,

Tonia Lediju
Director of Audits

cc: Mayor
Board of Supervisors
Civil Grand Jury
Budget Analyst
Public Library

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LIST OF ABBREVIATIONS AND ACRONYMS

BAWSCA	Bay Area Water Supply and Conservation Agency
CDD	City Distribution Division
CSA	City Services Auditor
Enterprise	San Francisco Public Utilities Commission Water Enterprise
GAO	United States Government Accountability Office
HHWP	Hetch Hetchy Water and Power
IT	Information Technology
SFPUC	San Francisco Public Utilities Commission
WS&T	Water Supply & Treatment

INTRODUCTION

Audit Authority

The City Charter provides the City Services Auditor (CSA) with broad authority to conduct audits of City departments and services. CSA conducted the Water Enterprise audit under that authority and pursuant to an annual audit plan agreed to by the Office of the Controller and the San Francisco Public Utilities Commission (SFPUC).

Background

The Water Enterprise delivers water to 2.4 million customers in the Bay Area

The Water Enterprise (Enterprise), one of three utility enterprises of the SFPUC, consists of six divisions:

- Natural Resources
- Hetch Hetchy Water[1]
- Water Quality
- Water Supply and Treatment
- City Distribution
- Water Resources Management

Three of the divisions of the Enterprise each have a materials management or materials and supply section, with a warehouse that issues inventory: City Distribution Division (CDD), Hetch Hetchy Water and Power (HHWP), and Water Supply and Treatment (WS&T).

The Enterprise delivers water to 2.4 million customers in the Bay Area. From Hetch Hetchy Reservoir, situated in a designated wilderness area inside Yosemite National Park, the Enterprise delivers water to San Francisco and 28 wholesale water agencies in San Mateo, Alameda, and Santa Clara counties through a 170-mile long system of reservoirs, tunnels, pipelines, and treatment plants.

The Enterprise distributes water directly to residential, commercial, and industrial customers in San Francisco through the CDD, the retail water operation. The Enterprise's CDD manages over 1,300 miles of pipeline, 13 storage reservoirs, 8 storage tanks, 20 pump stations, and 17 disinfection stations.

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[1] **Hetch Hetchy Water and Power is a stand-alone enterprise composed of the Power Enterprise and a portion of the Water Enterprise's operations (Hetch Hetchy Water), specifically the upcountry water supply and transmission service. A number of the facilities are joint assets and used for both water transmission and power generation.**

The Enterprise also sells water to its 28 suburban wholesale customer agencies

The Enterprise also sells water to its 28 suburban wholesale customer agencies organized as the Bay Area Water Supply and Conservation Agency (BAWSCA). These agencies represent commercial customers in Alameda, San Mateo and Santa Clara counties (including those in Silicon Valley). WS&T manages the wholesale water operation.

Managing inventory is critical to controlling cost, operational efficiency, and mission readiness

Managing the acquisition, storage, and distribution of inventory is critical to controlling cost, operational efficiency, and mission readiness. Proper inventory accountability requires that detailed records of acquired inventory be maintained, and that this inventory be properly reported in the Enterprise's financial management records. Physical controls and accountability reduce the risk of undetected theft and loss, unexpected shortages of critical items, and unnecessary purchases of items already on hand. These controls improve visibility and accountability over inventory, which help ensure continuation of operations, increased productivity, and improved storage and control of excess or obsolete stock.

The primary function of the materials management section in each of the three divisions is to provide other sections of the division with the parts and materials they require in a timely manner and at the lowest cost. Each division's materials management section consists of varying levels of staffing as detailed in the exhibit below.

EXHIBIT	Staffing at Each Warehouse Location			
Job Classification	**Description**	**CDD**	**HHWP**	**WS&T**
1950	Assistant Purchaser	2	1	
1944	Materials Coordinator	1		
1936	Senior Storekeeper			1
1934	Storekeeper	1	1	1
1931	Senior Parts Storekeeper		1	
1929	Parts Storekeeper	1	1	
1630	Account Clerk	1		
Total employees		**6**	**4**	**2**

Source: Organizational charts provided by the SFPUC.

The CDD warehouse manages the largest inventory.

The Enterprise held total inventory with a value of approximately $2.2 million as of November 2010. The CDD warehouse has the largest inventory, valued at $1.4 million.

HHWP and WS&T warehouses have inventory valued at $309,000 and $479,000, respectively.

MAXIMO is an asset management and work order system

The Enterprise uses MAXIMO, an asset management and work-order system, to support a number of inventory and warehouse functions electronically. A master item catalog identifies all items stocked in the CDD, HHWP, and WS&T warehouses, and maintains information such as specifications and stock type. MAXIMO also tracks inventory data, including storeroom and bin location, bin balances, and physical count frequency. Bin balances are maintained by recording all transactions in MAXIMO that are related to stock, including purchase order receipts, issues, transfers, physical counts, and balance adjustments. Most of these transactions begin on paper and are then entered into MAXIMO by inventory clerks or other staff performing inventory or materials management functions.

The Board of Supervisor's Budget Analyst previously audited the Enterprise's materials management

The Board of Supervisor's Budget Analyst completed four comprehensive management audits of the SFPUC in fiscal year 2004-05. Two of those reports included recommendations for improved materials management at CDD, HHWP, and WS&T, including developing policy and procedure manuals, and ensuring that tools and equipment are inventoried annually.

Objectives

The main objective of the audit was to determine whether the SFPUC's Enterprise has standardized and consistent inventory processes and controls over its warehouses, and that those processes and controls are adequate to ensure that materials, supplies, and tools are accurately accounted for, and adequately organized and properly secured. Specifically, the objectives were to ensure that the Enterprise:

- Maintained an accurate inventory of materials, supplies, and tools by utilizing MAXIMO to track items received and issued from inventory, and that the Enterprise conducted periodic inventory counts as required by sound business and accounting practices.
- Organized inventory items in an efficient and effective manner to facilitate storing and locating items, and actively managed scrap and obsolete inventory.

- Secured inventory adequately to minimize the risk of theft by limiting access to warehouses, tool room, and yards to authorized individuals only.
- Documented and periodically updated inventory policies and procedures.

Scope and Methodology

The scope of the audit included all inventory transactions in fiscal year 2009-10. To perform the audit, the audit team:

- Interviewed Enterprise staff and managers to gain an understanding of the Enterprise's inventory processes at the CDD, HHWP, and WS&T divisions, including purchasing, receiving, and issuing inventory.
- Conducted a walk-through of the three warehouses.
- Performed inventory test counts at the three warehouses and compared the count results to MAXIMO balances.
- Reviewed and analyzed purchasing, receiving, and inventory issue documents and reports.
- Researched industry best practices, and reviewed previous audits issued by the Board of Supervisor's Budget Analyst and other agencies.

This performance audit was conducted in accordance with generally accepted government auditing standards. These standards require planning and performing the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. We believe that the evidence obtained provides a reasonable basis for the findings and conclusions based on the audit objectives.

CHAPTER 1 – Water Enterprise Could Improve Its Inventory Processes and Controls

Summary

In general, SFPUC's Enterprise has mostly adequate processes and controls over its three warehouses to ensure that materials and supplies are accurately accounted for, adequately organized and properly secured. Since the Budget Analyst issued its two SFPUC management audit reports in 2004 and 2005, all three warehouses at CDD, HHWP and WS&T have developed warehouse inventory policies and procedures. Audit test counts revealed low dollar error rates, and walkthroughs of the three warehouses revealed well-organized inventory and secure premises.

However, SFPUC could improve its inventory processes and controls by performing annual inventory counts using count teams of warehouse and SFPUC Finance staff, reviewing and investigating all adjustments made to inventory at a management level, and working with its SFPUC's Information Technology (IT) unit to ensure that MAXIMO, an asset management and work-order system, keeps an accurate record of fuel inventory.

Further, SFPUC could improve its processes and controls by implementing an electronic process to issue inventory, reconciling warehouse issue forms against MAXIMO inventory issue reports to confirm data was correctly entered into MAXIMO, segregating some incompatible duties of its warehouse staff, and properly labeling some inventory bin locations at CDD.

Inventory Management and the MAXIMO System

The Enterprise uses MAXIMO to support a number of inventory and warehouse functions electronically. MAXIMO is capable of functioning as a master item catalog that identifies all items stocked in the Enterprise warehouses, maintaining information on item balance, location, and physical count frequency. This information is maintained in MAXIMO by recording all transactions related to inventory receipt, issue, transfer, physical count, and balance adjustment. Most of these transactions are initiated on paper forms and the information is then manually entered into MAXIMO by appropriate staff. In addition, the Enterprise is undergoing a software upgrade from

MAXIMO 4.1 to MAXIMO 7.1, which will impact inventory and warehouse practices.

Finding 1.1

The Enterprise has mostly adequate processes and controls over its warehouses.

The audit found that the Enterprise has mostly adequate processes and controls to ensure that materials and supplies are accurately accounted for, adequately organized, and properly secured. Nevertheless, the audit identified some instances where the warehouses did not have sufficient processes and controls in place to allow the auditors to conclude that the warehouses fully met the objectives tested. This report develops later in more detail those instances where the audit identified weaknesses or an opportunity for improvement in the operations of the three warehouses.

The warehouses completed policies and procedures manuals

All three warehouses at CDD, HHWP, and WS&T have documented detailed warehouse policies and procedures, which were completed in response to the Board of Supervisor's Budget Analyst reports of the SFPUC Water Enterprise in 2004 and 2005. The auditors interviewed staff and managers at the three warehouses on practices for purchasing, receiving, and issuing inventory and found warehouse staff and managers to be knowledgeable of the contents of their inventory as well as the policies and procedures practiced at each location. The auditors found inventory issuing documents at CDD and WS&T to be generally adequate and all warehouses use MAXIMO to track its inventory purchases, receipts, and items issued from inventory.

The warehouses accurately account for their inventories

Further, the audit team conducted inventory test counts of 40 randomly and judgmentally selected items[2] at each warehouse and compared the item counts to the inventory balance in MAXIMO on the same date. The test counts revealed low dollar error[3] rates at CDD, HHWP, and WS&T of 3.6%, 1.7%, and 0.59%, respectively. All warehouses conduct periodic cycle counts and annual physical inventory counts.

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[2] **30 items were randomly selected from each warehouse's inventory list using audit software and 10 items were judgmentally selected from the warehouse shelves for inventory test counts.**

[3] **Results of audit test counts were measured in total net dollar value of adjustments with a zero tolerance for errors. Zero tolerance indicates that there is no range of error that is considered tolerable. Thus all errors, no matter how insignificant, were counted as errors.**

Turnover rates are a common method for determining whether an organization is maintaining an appropriate level of inventory. Turnover is often expressed as the average number of "turns" (i.e., number of times the inventory is completely used up during a period of time) or average length of time (e.g., days) that purchased stock remains in the inventory. Low turnover is generally a sign of operating inefficiencies because more materials are kept on hand than are needed. However, all three warehouses show adequate inventory turnover rates for CDD, HHWP, and WS&T as of June 30, 2010, at 1.5, 2.3, and 1.3 turns, respectively. In fact, this is an improvement over the turnover rates cited in the Budget Analyst report for SFPUC issued in 2005, where the Budget Analyst reported turnover rates of 1.4 and 0.71 turns for HHWP and WS&T.[4]

Some of the warehouses have implemented additional programs to further enhance their functions. For example, the CDD warehouse has a well organized and controlled scrap metal recycling practice. It also recently acquired the Auxiliary Water Supply System inventory from the San Francisco Fire Department. The HHWP warehouse, according to the Parts Storekeeper, arranged a buy-back policy for auto parts where the auto parts vendor will buy back obsolete items, thus saving the warehouse the expense for obsolete auto parts inventory.

The warehouses properly secure their premises

The Enterprise has adequate processes and controls to secure its inventory. The auditors discussed and observed warehouse security at each of the three locations. During the walk-through and interviews at each warehouse, the auditors observed access limited to only a few entry points and a customer counter at each location. The auditors observed City employees following proper warehouse procedures for inventory requests from warehouse staff.

For example, at CDD, non-warehouse employees can only gain access behind the customer counter through warehouse employees. At the HHWP warehouse, access is limited by two doors into the warehouse, each using a different key. In the event of an emergency after warehouse hours, an authorized employee from the "call list" would need to return to open the warehouse. No deliveries are allowed to be made directly to outside units.

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[4] **A turnover rate for CDD was not cited by the Budget Analyst.**

At the WS&T warehouse, security cameras outside of the warehouse monitor the entrances and areas by the roll-up doors. Warehouse visitors can only enter through one door, which remains locked when the warehouse is unattended.

The Enterprise also has mostly adequate processes and controls to ensure its materials, supplies and tools are organized in an efficient and effective manner. The auditors performed a walk-through of the three warehouse locations and found each warehouse to be clean and well organized. In the HHWP and WS&T warehouses, the inventory was clearly identified with each item having a unique storage location. However, as discussed in the next finding, the CDD warehouse did not always clearly identify its inventory.

Finding 1.2

CDD's inventory bin locations were not all properly labeled.

The audit team found that some inventory bin location labels at CDD were faded and difficult to read or were hand-written on Post-it notes. According to CDD's *Warehouse Policies and Procedures*, the Parts Storekeeper should clearly mark all material locations if possible, and create and post location plans. Bin locations are marked using a sequence of warehouse number, location, aisle number, section and bin number/column. Properly designed inventory location labels allow for the quick identification of inventory in warehouse aisles, racks, shelves, and bin locations.

Recommendation

1. CDD warehouse should ensure that all bin locations are clearly and properly labeled according to its standard policy.

Finding 1.3

The Enterprise should consider using staff knowledgeable about the inventory to conduct year-end inventory counts.

Warehouse staff had to recount numerous inventory items previously counted by SFPUC Finance staff

SFPUC Finance staff performed independent year-end physical inventory counts at CDD, HHWP, and WS&T warehouses during the last two weeks ending June 30, 2010. The Finance staff performed a 100 percent count at the CDD and WS&T warehouses, and a sample of 21 percent of the items at the HHWP warehouse. However,

many of the inventory items had to be later recounted by warehouse staff at two of three warehouses because of discrepancies between the Finance staff's count and the balances in MAXIMO.

SFPUC Finance not involving the warehouse staff in the year-end count resulted in an inefficient year-end count process. At CDD, warehouse staff recounted 34 items which had a significant variance in quantities or dollar amount, and at WS&T, warehouse staff recounted 19 items with variances. It was necessary for SFPUC Finance staff to return to the warehouses to verify the recounted items. Test counts performed as part of this audit also revealed some count discrepancies, for which two of the warehouses provided as an explanation that SFPUC Finance had probably miscounted items during the year-end count.

Best practices to conduct physical counts of inventory

The United States Government Accountability Office (GAO)[5] identified several key factors in achieving consistent and accurate counts of physical inventories. Appendix A: *Inventory Count Best Practices* presents the key factors. One of those key factors is enlisting knowledgeable staff to perform the count because experienced, knowledgeable inventory counters increase the accuracy and efficiency of the physical count. Further, counters most familiar with the warehouse layout and daily operations are more likely to conduct the counts quickly and resolve count discrepancies without having to conduct excessive research.

In another publication[6] entitled, *Inventory Best Practices*, the author recommends streamlining the physical count process by allowing only warehouse staff to count. The author states that warehouse employees have an excellent knowledge of all parts stored in the warehouse and are the most qualified to identify and count inventory in the most efficient manner. If other less knowledgeable people are brought into the process, it is much more likely that there will be counting problems resulting in wasted time at the end of the physical count, when extra counting teams must be dispatched to research potential miscounts.

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[5] **Executive Guide:** *Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property* **(GAO-02-447G), United States Government Accountability Office, March 2002.**

[6] **Bragg, Steven M.,** *Inventory Best Practices***, John Wiley & Sons, Inc., New Jersey, 2004.**

Because SFPUC Finance staff conduct a physical count infrequently (at fiscal year-end and a second count at calendar year-end for CDD warehouse only), and because as financial staff they may not necessarily have knowledge about warehouse items, they may not be the most knowledgeable staff to perform the count. However, an SFPUC Director explained that SFPUC Finance staff conduct the physical count to comply with the Controller's *Fixed Assets Definitions and Guidelines*, which states that physical inventories should be performed by personnel having no direct responsibility (custody and receipt/issue authority) for assets subject to the inventory count. This provides a segregation of duties among physical custody of assets, recording count transactions, and approval of count adjustments.

Nevertheless, the GAO *Executive Guide* acknowledges situations where segregation of duties is not practical or cost-effective and in such cases, other mitigating controls should be employed such as blind counts[7], increased supervision, and two person count teams. Because of the problems encountered previously with only SFPUC Finance staff conducting the physical count of the Enterprises inventory, the Enterprise can still meet the Controller's guidelines by changing SFPUC Finance's role to act as physical count observers.

Recommendations

The Enterprise should:

2. Assign annual inventory count teams consisting of warehouse staff and SFPUC Finance staff working together to efficiently count and verify balances.

3. Ensure that adjustments to inventory are approved by a manager.

Finding 1.4

Enterprise warehouse fuel inventory is inaccurate.

Fuel inventory inaccuracies result in time consuming manual processes to determine actual amounts

MAXIMO incorrectly lists quantity and value of fuel inventory managed by all three Enterprise warehouses. For example, in the inventory report provided to the auditors, MAXIMO listed a balance of negative 21,347

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[7] A blind count refers to the performance of a physical inventory count without the knowledge of, or access to, the on-hand quantity balance in the inventory records.

gallons of diesel fuel in fuel storage tanks at CDD with a value of negative $67,457. SFPUC IT staff believe that this incorrect listing is caused by a combination of factors, including broken sensors in fuel tanks, and a lack of coordination between Enterprise and SFPUC IT unit to reconcile discrepancies between MAXIMO and the EJ Ward fuel management system used to electronically monitor fuel inventory and usage.

Enterprise staff have implemented time consuming manual processes to obtain more accurate information on the actual fuel available in fuel storage tanks. According to the HHWP parts storekeeper and storekeeper, a staff person is sent to all six of their fueling locations once a month to take a manual reading of fuel tanks using a dipstick. Readings are performed at five of the fueling locations near the beginning of each month, while the sixth station is checked around the middle of each month, and the results are recorded in a spreadsheet. This manual process costs approximately $2,107 per year, in addition to the time that the warehouse employee is taken away from their normal duties. WS&T also implemented a similar manual process to obtain more accurate inventory information. CDD adjusted their recorded amount to reflect the actual amount of fuel during the year-end inventory count.

The EJ Ward system, which an SFPUC director advised cost approximately $230,000 in 2003, was intended to electronically monitor fuel inventory and usage, but data reported in MAXIMO is inaccurate and unreliable. Further, the manual process is time consuming, and subject to errors in the manual measurement process or spreadsheet data entry.

Recommendations

4. The Enterprise should work with the SFPUC Information Technology unit to resolve discrepancies and ensure MAXIMO keeps an accurate account of all fuel inventory carried by Enterprise warehouses.

Finding 1.5

Enterprise warehouses do not fully utilize MAXIMO to track items issued from inventory.

MAXIMO's capabilities include electronically tracking inventory items issued by

Enterprise warehouses do not take full advantage of available electronic technology to record information on items issued from inventory. The warehouses can reduce

using hand-held scanners

some manual recording steps by using handheld scanners to record and transfer inventory data into MAXIMO.

To receive inventory from the warehouses, Enterprise employees must complete and present to a storekeeper an *Issued from Stores*[8] form, which the storekeeper then uses to gather the items to issue to the employees. The form is to be signed by the requestor and requires a supervisor's signature and work order number, controls that allow the storekeeper to verify approval and correctly charge the materials issued from inventory to the specified work order number in MAXIMO.

In April 2010, CDD, the largest of the three warehouses, started accepting email requests from authorized individuals, in addition to the *Issued from Stores* form, thus making the process partially electronic. The new emailed requests do not have signatures; the email sent by the approver (foreman or above) serves as the formal approval. CDD also uses preprinted *Issued from Stores* forms for routine jobs performed by the Construction and Maintenance group. Electronic preprinted issue forms are also available for attachment to emailed requests. The other two warehouses do not currently use email requests.

The information on the *Issued from Stores* form or email issue request is then used to enter the item type and number of items issued into MAXIMO. Enterprise policies and procedures state that inventory issue transactions are to be entered into MAXIMO to charge the materials against the specified work order number, as well as to track and account for inventory usage.

However, this manual entry step may be eliminated if the warehouses use hand held scanners to electronically record the items that are issued and then transfer the information directly into MAXIMO. Enterprise's facilities and inventory are well suited for a more efficient and better controlled electronic process to track the issuance of inventory. For example, HHWP inventory item locations are tagged with barcodes that can be identified with a handheld scanner. The scanners can use the inventory item's bar code to instantly record the date, time, and item number of issued inventory in MAXIMO. For each item, the

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[8] The *Issued from Stores* form is called a *Stock Order* form at HHWP.

warehouse employee can also record in the scanner the number or amount of items issued. Employee ID cards could also be bar coded to record the employee requesting the item. By using the scanners to automatically record the items issued from inventory in MAXIMO at the time the items are picked from the warehouse shelves, storekeepers would not have to manually enter the information from the *Issued from Stores* form into MAXIMO. Handheld scanners can also be used by staff in conducting inventory cycle counts.

Although cost versus benefit is always a consideration when deciding whether to implement any new system, it should be noted that the HHWP warehouse has the handheld scanners, but warehouse staff are not currently using them. CDD and WS&T warehouses do not have the scanners. Further, the SFPUC does have experience on using handheld scanners for some of its warehousing functions, as noted in the August 2010 audit report by CSA on the SFPUC's Wastewater Enterprise inventory management. The report noted that Southeast warehouse staff use the handheld scanners for inventory cycle counts, but had not used them for issuing inventory items.

Recommendation

5. The Enterprise should implement an electronic inventory issue process at CDD, HHWP and WS&T.

Finding 1.6

Enterprise warehouses do not ensure the accuracy of information taken from inventory issue forms that is entered into MAXIMO.

Enterprise warehouse employees do not reconcile the information taken from the *Issued from Stores* forms and recorded into MAXIMO. The *Issued from Stores* form contains information on the work order number, inventory item stock number, quantity issued, and item description. The item stock number, number of items, and work order number is entered into MAXIMO to charge the materials against a specified work order number. MAXIMO is used to not only record the reduction in inventory, but to provide staff with real-time information on what items are available for use.

Because warehouse staff manually enter information from the forms into MAXIMO, there is the potential for data entry

errors. Nevertheless, staff at the three warehouses indicated they do not reconcile the information they enter from the forms into MAXIMO. The audit team was not able to perform a reconciliation of a sample of *Issued from Stores* forms to MAXIMO due to some problems encountered at the warehouses: at CDD the issue forms were not filed in an orderly fashion to enable the audit team to identify the dates the data had been entered into MAXIMO; HHWP did not retain the *Issued from Stores* forms; and at WS&T a monthly issue report could not be produced from MAXIMO.

MAXIMO is capable of generating a daily report of all warehouse issues. By not reconciling *Issued from Stores* forms to the MAXIMO report, staff may not identify when they bill the wrong work order, or enter the incorrect item or quantity into MAXIMO, causing an incorrect valuation of inventory. Enterprise policies and procedures manuals only require that warehouse staff enter information from the *Issued from Stores* form into MAXIMO to charge the materials against a specified work order number. However, the manuals do not address the need to ensure that such information has been accurately recorded.

Recommendations

The Enterprise should:

6. Ensure its warehouses reconcile daily the *Issued from Stores* forms with MAXIMO inventory issued reports to confirm data was correctly entered into MAXIMO. To maintain adequate separation of duties, the reconciliations should be performed by an individual who did not enter the issue information into MAXIMO.

7. Formally document discrepancies in *Issued from Stores* forms and MAXIMO inventory amounts. Report discrepancies to a supervisor to approve any corrections in MAXIMO.

8. Ensure that HHWP retains *Issued from Stores* forms.

Finding 1.7

WS&T does not have sufficient warehouse staff to ensure segregation of duties.

Staffing at WS&T does not allow for proper segregation of duties

Enterprise's current staffing levels increase the risk of loss and theft because there is inadequate segregation of

duties at the WS&T warehouse. The WS&T is currently staffed by only two employees: a Senior Storekeeper and Storekeeper. A third employee, a Warehouse Worker, recently retired. The two individuals are responsible for purchasing inventory, and also receiving inventory and recording inventory quantities in MAXIMO.

Segregation of duties is a widely accepted internal control and business practice. The basic idea underlying segregation of duties is that no employee or group of employees should be in a position to both perpetrate and to conceal errors or fraud in the normal course of their duties. In general, the key areas of segregation are (1) custody of assets, (2) processing and recording of transactions, and (3) authorization or approval of transactions. Ideally, personnel performing any one of the above functions would not also have responsibilities in either of the other two functions.

Enterprise policies and procedures instruct staff on how to request orders, receive, and record inventory, but do not require a separation of these duties. Both CDD and HHWP have more staff at their locations (six and four staff, respectively), which allow for proper segregation of duties.

Recommendation

9. The Enterprise should implement additional supervisory review of WS&T warehouse operations by someone with knowledge of the operation, but who has no custody, or recording responsibilities, such as the manager of the WS&T warehouse, to ensure adequate control over inventory when separation of duties is not possible. This person should review the daily reconciliation of inventory issues to MAXIMO, and results of cycle counts and required adjustments.

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CHAPTER 2 – Water Enterprise Could Improve Its Management of Tools

Summary

The San Francisco Public Utilities Commission (SFPUC) Water Enterprise (Enterprise) has invested at least $4.9 million in tools, not included as warehouse inventory, which are not fully tracked or fully inventoried. Although the Enterprise has made some efforts to inventory its tools in response to Budget Analyst audits in 2004 and 2005, it also needs to assign responsibility for tool management and inventory to shop supervisors, and to develop tool management policies and procedures.

Background

Tools should be properly tracked and managed to decrease the risk for loss or theft. A proper tracking system could also reduce the risk of over ordering of tools that may already be in use. In addition, an improved system for managing tools could include provisions for the maintenance and upkeep of the tools, leading to decreased tool replacement costs. An annual tool inventory would disclose whether a problem exists with missing tools and whether further controls are warranted. Further, tool management policies and procedures should identify the types of tools subject to tool inventory, the inventory process and analysis of the tool shortage, the type of data collected for the inventory, and the system maintaining the inventory.

All three of the Enterprise's warehouses include some small tools (defined as costing approximately under $100) as part of their inventory and these tools are tracked in MAXIMO until issued as part of a work order. However, tools costing over $100 are not considered inventory but are used and maintained at the various shops located around each warehouse. For example, CDD's Machine Shop's tool inventory totaled $1.9 million at December 23, 2010. Enterprise trucks can also carry tools. For example, CDD plumbing trucks contain approximately $34,000 of tools. Only HHWP has a separate tool room, in addition to the tools maintained in its various shops. The separate tool room at HHWP houses tools which are not often needed, but are available on a check-out basis.

Finding 2.1

Enterprise warehouses need to improve the management of tools.

Currently, tools are not adequately tracked and managed at the Enterprise's three warehouses; further, each warehouse has different challenges keeping it from fully addressing and implementing proper tool management practices. The Budget Analyst's Office of the Board of Supervisors previously audited the SFPUC in 2004 and 2005 and recommended that all tools be inventoried annually at CDD, HHWP, and WS&T.

CDD has completed an inventory of tools, but needs to add other tool management practices

CDD has completed a separate inventory of its tools, valued at over $4.7 million, which are located at its eight shops and on its trucks. The inventory listing is maintained on an electronic spreadsheet by the Materials Coordinator. However, according to the Materials Coordinator, CDD's challenge is to identify responsible parties for managing the tool inventory at each of the eight shops and on its trucks. Also, CDD still needs to conduct an annual inventory to update the tool inventory to add new tools that have been purchased, as well as eliminating tools that have been lost or broken. Further, CDD's warehouse manual does not include policies and procedures for tool management.

HHWP has completed an inventory of tools, but needs to update its inventory and improve the management of its tool room

HHWP also has a complete inventory of its tools valued at approximately $184,000, which are located at its shops and on its trucks. Shop supervisors are responsible for being accountable for their tools and for performing an annual inventory. However, this inventory was last conducted in April 2009, when it was updated to account for continued use of tools, and is recorded in MAXIMO by the Maintenance Planning section. The Parts Storekeeper periodically updates this list with new tools purchased through the warehouse. Also, although HHWP's warehouse manual does not include policies and procedures for tool management, the maintenance planning section has limited draft procedures on which tools to include as part of the tool inventory.

Unlike the other two warehouses, HHWP maintains a separate tool room, managed by a part-time employee outside of the warehouse. This tool room houses tools which are not often needed by the shops, and therefore could be maintained in a central location. The tool room attendant issues tools on a manual check-out basis using a log to track the employees who have checked out certain tools. However, according to the Manager of Facilities and Systems Maintenance, the attendant does not always ensure that the tools are returned. Further, this manual check-out process limits HHWP's ability to track historical usage of the tools. Historical usage would be useful for management to evaluate which tools should be in the tool

room and which tools should be out at the shops, since some shops already have some tools that are also stocked in the tool room.

HHWP can improve its current tool room practices by implementing an electronic tool tracking and check out system. To do this, HHWP could affix a unique bar code label to each tool and record the identifying numbers for each tool. To use the electronic system as a check out system, HHWP would need to issue to each employee an identification card that also has a unique bar code identification number. To check out a tool, the tool room attendant can scan the bar code on the tool and the bar code on the employee's identification card to automatically record who checked out what tool. Automated reports would show what tools have been checked out and for how long.

SFPUC's plan is to bring the management of the HHWP tool room under the warehouse's responsibility. However, according to HHWP's Principal Administrative Analyst, HHWP's tool room proposal to allow for appropriate staffing and controls over its tool room submitted as a budget proposal was denied for FY 2011-12.

WS&T does not have an inventory of its tools

WS&T does not yet have an inventory of its tools located at the shops or on its trucks. Further, WS&T has not assigned responsibility for the tracking and managing of its tool inventory. WS&T's policies and procedures do not currently include tool management. WS&T's Business Services Manager noted that she does not currently have the staff to perform the inventory.

Recommendations

10. CDD should improve its tool management practices by doing the following:

- Conduct annual inventories of its tools to update the current inventory list.
- Keep a record of its tool inventory in MAXIMO.
- Assign responsibility for the tool inventories and management to the shop supervisors.
- Develop policies and procedures for tool management.

11. HHWP should improve its tool management practices by doing the following:

- Conduct annual inventories of its tools to update the current inventory list.
- Consider implementing an electronic tool

checkout system.
- Complete its policies and procedures for tool management.

12. WS&T should improve its tool management practices by doing the following:

- Perform an inventory of all tools in shops and on trucks and record the inventory in MAXIMO.
- Conduct an annual inventory thereafter to update the tool inventory.
- Assign responsibility for the tool inventory and management of tools to its shop supervisors.
- Develop policies and procedures for tool management.

13. The Enterprise should develop a dollar threshold for determining which tools need to be secured both in the tool room and at the division shops. To deter theft, tools above the threshold should be kept in locked cabinets or drawers until needed.

APPENDIX A: Inventory Count Best Practices

In March 2002, the United States Government Accountability Office (GAO) issued an executive guide[9] that identified processes and controls used by seven private sector companies[10] recognized as excelling in their ability to manage inventory and achieve consistent and accurate counts of physical inventories. The guide identifies 12 key factors that represent practices that are widely adaptable to a variety of inventory types (e.g., property, plant and equipment), volumes, and dollar values. The following is a summary of the 12 key factors and strategies to consider when implementing them. The summary table shows that there is an overarching requirement for management commitment to an environment that promotes sound inventory control.

MANAGEMENT COMMITMENT	
1.	Establish Accountability
2.	Establish Written Policies
3.	Select an Approach
4.	Determine Frequency of Counts
5.	Maintain Segregation of Duties
6.	Enlist Knowledgeable Staff
7.	Provide Adequate Supervision
8.	Perform Blind Counts
9.	Ensure Completeness of Count
10.	Execute Physical Count
11.	Perform Research
12.	Evaluate Count Results

1. **ESTABLISH ACCOUNTABILITY**
   a. ***Characteristics:***
      i. Set inventory record accuracy goals at 95 percent or better
      ii. Set other performance expectations
      iii. Establish accountability and responsibility for the overall physical count
   b. ***Strategies to consider to establish accountability for the physical count process:***
      i. Establish performance goals for the physical count that are aligned with the organization's mission, strategic goals, and objectives

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[9] United States Government Accountability Office. *Executive Guide: Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, GAO-02-447G.* 2002.

[10] The seven leading-edge companies studied were Boeing, Daimler Chrysler, DuPont, FedEx, General Electric, Honeywell, and 3M.

    ii.   Establish high measurement goals and continuously assess the organization's progress in achieving and maintaining those goals

    iii.   Identify the line of authority and responsibility from top management to the level of the organization responsible for accomplishing a consistent, accurate physical count of inventory and related property

    iv.   Develop employee/supervisor performance measurement systems to hold appropriate personnel accountable for achieving the organization's performance goals

2. **ESTABLISH WRITTEN POLICIES**
   a. *Characteristics:*
      i. Document policies and procedures for entire physical count process
      ii. Regularly review and update established policies and procedures
   b. ***Strategies to consider to establish effective written policies and procedures for the physical count process:***
      i. Develop broad inventory policies that are designed to attain management's goals
      ii. Develop written procedures for all aspects of the physical count processes, including:
         - defining the current processes and the individual tasks associated with the process
         - procedures for and examples of filing and completing required paperwork
      iii. Regularly review and revise policies and procedures for changes in the process and individual tasks

3. **SELECT AN APPROACH**
   a. *Characteristics:*
      i. Cycle counting supports operational and financial needs of the organization
      ii. A wall-to-wall physical count supports financial reporting at a point in time
      iii. In selecting the best physical count approach management should consider:
         - the objective or purpose of the count and the timing issues involved
         - the capabilities of the inventory system
         - the existing control environment over the inventory system and processes
         - the characteristics of the inventory
   b. ***Strategies to consider to select a physical inventory counting approach:***
      i. Determine the objectives of performing the physical count:
         - to establish a balance as of a specific date for financial reporting
         - to monitor the accuracy of the inventory records for financial reporting and management decisions
         - to ensure the availability of inventory to meet operational needs including mission readiness
         - to identify excess or obsolete inventory
      ii. Assess the resources and timing needed to conduct the count
      iii. Evaluate the capability of the inventory system to:
         - maintain item balances on a current or periodic basis, and
         - maintain balances by item location
      iv. Evaluate the existing control environment over the inventory system and processes:
         - to ensure transactions are properly executed and recorded in the inventory system
         - to determine that the inventory system provides a reasonable basis for comparison to the physical count
         - by considering existing or historical accuracy rates to support the assessment

4. **DETERMINE FREQUENCY OF COUNTS**
   a. *Characteristics:*

    i. Determine which items to count and how frequently
    ii. Choose a method of selecting individual items or locations for count

  b. ***Strategies to consider to determine the frequency of the physical counts:***
    i. Assess the resources and timing needed to conduct the count
    ii. Identify segments or classes of the inventory and assess each segments' risk to determine the degree of control needed based on:
- activity or turnover
- dollar value
- sensitive or classified items
- items critical to production or mission readiness
- items susceptible to misappropriation, including theft

    iii. Select a frequency of count for each segment based on the assessed risk and degree of control needed such as:
- daily
- weekly
- monthly
- semi-annually
- annually

    iv. Determine a method of selecting individual items for count such as:
- sequentially by row or area within the warehouse or facility
- random selection
- weighted selection towards higher dollar, higher activity items

5. **MAINTAIN SEGREGATION OF DUTIES**
  a. ***Characteristics:***
    i. Segregation of duties
- Physical custody of assets
- Processing and recording of assets
- Approval of transactions

    ii. Mitigating controls
- Blind counts (see key factor 8)
- Increased supervision (see key factor 7)
- Two-member count teams

  b. ***Strategies to consider to implement and maintain effective segregation of duties in the physical count process:***
    i. Determine if there are available resources to conduct the count and whether they have the appropriate knowledge and experience of the inventory and counting
    ii. Analyze the normal job duties of personnel performing the physical count, considering who has responsibility for:
- custody or physical control of the inventory
- processing and recording of inventory transactions
- approval of transactions and adjustments

    iii. Determine whether controls may be impaired if any one person has been given responsibility for more than one activity noted in the previous strategy
    iv. Perform a risk versus cost analysis of any apparent controls risks, and determine whether:
- duties may be reassigned
- mitigating controls can be implemented
- risk is at an acceptable level

6. **ENLIST KNOWLEDGEABLE STAFF**
    a. *Characteristics:*
        i. Counters are knowledgeable about the inventory items
        ii. Counters are knowledgeable about the count process
        iii. Counters are well-trained
    b. *Strategies to consider to enlist knowledgeable staff in the physical count process:*
        i. The amount of resources available to conduct the count
        ii. Experience and knowledge of the inventory and count process of the count team
        iii. Frequency of counts of time necessary to complete the count
        iv. Establishing a separate inventory group of dedicated counters
        v. Assigning or promoting personnel with prior experience in the warehouse and knowledge of the inventory counting position
        vi. Providing on-the-job and classroom training of the count process to counters, supervisors, and personnel researching variances on aspects such as
            - types of inventory
            - warehouse layout
            - unit of measure
            - radio frequency (RF) devices
            - computer system
            - research (if applicable)
            - supervision (if applicable)

7. **PROVIDE ADEQUATE SUPERVISION**
    a. *Characteristics:*
        i. Provide instructions and training
        ii. Assign count team and responsibilities
        iii. Review count sheets
        iv. Ensure that all items are counted
    b. *Strategies to consider to provide adequate supervision over the physical count process:*
        i. The number of resources or teams performing the physical count
        ii. Frequency of the counts or the time necessary to complete the count
        iii. Knowledge and experience of the personnel performing the count
        iv. Whether there is adequate segregation of duties from responsibilities of asset custody
        v. The assigned responsibilities of the supervisor such as:
            - the availability of count personnel
            - selection of count team members
            - assignment of count responsibilities
            - monitoring of performance
            - ensuring counters are following procedure and complete counts in a timely manner
        vi. Size of the warehouse or area subject to count
        vii. The number and complexity of items to be counted
        viii. Other controls that may be in place during the count, such as the performance of blind counts

8. **PERFORM BLIND COUNTS**
    a. *Characteristics:*
        i. No prior knowledge of on-hand balances
        ii. Limited or no access to inventory system

    b. *Strategies to consider to effectively use blind counts:*
        i. Tools used to perform the count (count cards, count sheets, or RF Guns)
        ii. Capability of the inventory system to not provide quantities on count cards or sheets, and restrict access to on-hand balances prior to and during the performance of the count, except for authorized personnel
        iii. Personnel performing the physical count and whether there is segregation of duties between the responsibilities of asset custody and physical counts
        iv. Personnel's experience and knowledge of the inventory items and the count process

9. **ENSURE COMPLETENESS OF COUNT**
    a. *Characteristics:*
        i. Cutoff procedures
        ii. Preinventory count activities
        iii. Control methods for count completion
    b. *Strategies to consider to ensure completeness of the physical count:*
        i. The organization's operating environment, time of operations, and its ability to:
          • suspend operations during the physical count
          • perform counts when there is limited movement of the inventory, such as nights or weekends
          • prevent movement of items subject to count on the day of count only
        ii. Reliability of the inventory system to accurately capture and track transactions affecting the on-hand balances
        iii. Existence of slow-moving or excess obsolete inventory items that could be segregated and precounted
        iv. Existence of inventory stored at outside locations and the personnel or organization responsible for verifying its physical existence
        v. Use of prenumbered count sheets or tags and reconciliation of the numbers issued to the numbers returned
        vi. Reconciliation of items selected for count to actual items counted
        vii. Performance of additional counts where items are selected from the floor and compared to the inventory system

10. **EXECUTE PHYSICAL COUNT**
    a. *Characteristics:*
        i. Communicate information to the counter
        ii. Verify item data and quantity
        iii. Capture and compare the physical count
        iv. Perform requisite number of counts
        v. Complete counts in timely manner
    b. *Strategies to consider to effectively execute the physical count:*
        i. Determine the data to be verified by the count by considering:
          • knowledge and experience of the personnel performing the count
          • the item data maintained in the inventory system or on location labels
          • whether blind counts are to be performed, requiring the restriction of access to on-hand balances
        ii. Determine the method to be used to capture and compare the count, such as count cards, sheets, or RF guns, by considering:
          • the capability of the inventory system
          • ability to use RF devices

    iii. Determine number of counts to perform by considering:
- resources necessary to perform additional counts
- personnel performing additional counts and their segregation of duties from asset custody and their knowledge and experience of the inventory and count process
- time necessary to complete additional counts promptly
- characteristics of the inventory (unit of measure, size, dollar value, classification, and size of variance in quantity and dollar value) to establish tolerances for additional counts

11. PERFORM RESEARCH
    a. *Characteristics:*
        i. Perform required research
        ii. Complete research in a timely manner
        iii. Refer variances to management and security for approval and investigation
    b. *Strategies to consider to effectively research variances arising from the physical count:*
        i. Establish tolerances or criteria for selection of variances to research such as:
- effect on operations or mission readiness
- quantity and dollar value
- characteristics of the items with the variance, such as sensitive, classified, or items susceptible to fraud or theft

        ii. Develop processes for how to perform research, such as procedures for reviewing movement of items during the count, transaction histories, and shipping and receiving documents, by considering:
- reliability of the inventory system to accurately capture transactions affecting the on-hand balance
- time necessary to complete the research promptly
- knowledge of the personnel performing the research

        iii. Establish error codes that would identify the cause of variances
        iv. Set approval levels for adjustments that move up the chain of management as the dollar value increases or the nature of the item requires a higher level of approval
        v. Define responsibility for reviewing adjustments and trends on sensitive and classified items and items susceptible to fraud or theft, and notify security or law enforcement

12. EVALUATE COUNT RESULTS
    a. *Characteristics:*
        i. Measure the results of the physical count using performance measures
        ii. Communicate the results of the physical count to counters, management, and warehouse personnel
        iii. Modify policies and procedures to address necessary changes in the physical count process
    b. *Strategies to consider to evaluate the results of the physical count process:*
        i. Establish performance measures that are aligned with organizational objectives and strategies and that are useful in evaluating the results of the physical count
        ii. Determine the methods to be used to measure performance of the count by:
- defining an error for purposes of measuring performance
- establishing tolerances based on characteristics of the inventory and the quantity or dollar value of the variances to be considered in error

        iii. Establish mechanisms to communicate results and performance measures to counters, warehouse personnel, and managers

iv. Establish routine meetings with managers from all aspects of the inventory process including the physical count, receiving, shipping, ordering, stocking and production, to discuss results and measures and evaluate the causes of the errors to identify corrective actions and assign responsibility for those actions

v. Use results and performance measures as a basis to make changes to the process and modify existing policies and procedures to reflect changes in the processes

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APPENDIX B: DEPARTMENT RESPONSE

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

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March 31, 2011

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GENERAL MANAGER

Tonia Lediju, Audit Director
Office of the Controller, City Services Auditor Division
City Hall, Room 476
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Subject: Management's Responses to Results of the SFPUC Water Warehouse
Inventory & Control Audit

Dear Ms. Lediju,

Thank you for providing us the opportunity to respond to your Review of the SFPUC
Water Warehouse Inventory & Control Audit. We appreciate the time and effort that
you and your staff have dedicated to the completion and follow up of this audit.

Attached for your review and consideration are SFPUC Management's responses to
the recommendations detailed in the audit report, dated 3/25/11.

If you have any questions or need additional information, please do not hesitate to
contact me at (415) 554-1600.

Sincerely,

ED HARRINGTON
General Manager

cc: Michael Carlin, Deputy General Manager
        Todd L. Rydstrom, AGM Business Services & Chief Financial Officer
        Steve Ritchie, AGM Water Enterprise
        Nancy L. Hom, Director, Assurance & Internal Controls

AUDIT RECOMMENDATIONS AND RESPONSES

Recommendation	Responsible Agency	Response
1. CDD warehouse should ensure that all bin locations are clearly and properly labeled according to its standard policy.	SFPUC Water Enterprise	**CDD**: Concur. Estimated implementation date 6/30/11.
2. The Enterprise should assign annual inventory count teams consisting of warehouse staff and SFPUC Finance staff working together to efficiently count and verify balances	SFPUC Water Enterprise	**CDD**: Concur. Estimated implementation date 6/30/11. Implementation plan to include contacting PUC Financial Services personnel and engaging them in the next physical inventory audit 6/30/11. **HHWP**: Agree. Although HHWP did not experience the problems that occurred at the other warehouse locations, we agree that count discrepancies could be minimized by utilizing knowledgeable staff. Where SFPUC Financial Services staff are available, they could be utilized along with warehouse staff to conduct a full annual count. If Finance staff are not available for a full count, two person count teams could be utilized as noted in the "GAO Executive Guide Standards" cited in Finding 1.3 of the Draft Audit Report. **WST**: Concur. Conducting a full annual count by SFPUC Financial Services staff with warehouse staff could minimize possible discrepancies.

Recommendation	Responsible Agency	Response
3. The Enterprise should ensure that adjustments to inventory are approved by a manager.	SFPUC Water Enterprise	**CDD**: Concur. Estimated implementation date 6/30/11. Implementation plan to include having Manager of CDD Administrative Services review and approve adjustments from 6/30/11 inventory count. **HHWP**: According to current warehouse procedures, inventory adjustments greater than $1,000 are required to be approved by warehouse personnel and then sent to SFPUC Accounting. Copies of these greater than $1,000 adjustments are kept in a binder at the warehouse. Additionally, we will request that San Francisco IT create a report to be printed on a monthly basis by warehouse staff for management review of all inventory adjustments (those less than and greater than $1,000), as well as their approval of the report and these adjustments. Estimated date to complete discussions on developing report: 6/30/11. **WST**: Concur. It has been an existing on-going WS&T practice to document reasons of adjustments in the MAXIMO screen under memo line and notified pertinent supervisors. A screen shot of the MAXIMO screen and notification to supervisors are kept with issued forms.

Recommendation	Responsible Agency	Response
4. The Enterprise should work with the SFPUC Information Technology unit to resolve discrepancies and ensure MAXIMO keeps an accurate account of all fuel inventory carried by Enterprise warehouses.	SFPUC Water Enterprise	**CDD**: Concur. Estimated implementation date 12/31/11. Implementation plan to include working with PUC Information Technology Services to engage vendor EJ Ward to resolve interface with Maximo. **HHWP**: Agree. The EJ Ward fuel inventory system, which is the basis for fuel inventory records in MAXIMO, is frequently out of adjustment with actual inventory. These problems have been a result of many different types of system failures: network communication errors, modem failures, tank level sensor errors, battery failures, etc. We will request SFPUC ITS resources to both evaluate the system problems and submit a written proposal to address these issues. **WST**: Concur. This requires PUC ITS staff to evaluate the system problems and submit a written proposal to address these issues.

Recommendation	Responsible Agency	Response
5. The Enterprise should implement an electronic inventory issue process at CDD, HHWP and WS&T.	SFPUC Water Enterprise	**CDD**: Partially concur. CDD will explore the possibility of implementation and discuss with WWE personnel regarding their experiences. Estimated date to complete exploratory phase as to viability of electronic process: 12/30/11. **HHWP**: Agree. The current barcode system has not been fully implemented due to the lack of SFPUC ITS resources to troubleshoot problems with the reliability of the electronic barcode system. This project will be prioritized based upon ITS resource availability. **WST**: Concur. However, information will still need to be inputted by a staff before electronic hand held scanners can be used, thus reducing errors marginally.

Recommendation	Responsible Agency	Response
6. The Enterprise should ensure its warehouses reconcile daily the *Issued from Stores* forms with MAXIMO inventory issued reports to confirm data was correctly entered into MAXIMO. To maintain adequate separation of duties, the reconciliations should be performed by an individual who did not enter the issue information into MAXIMO.	SFPUC Water Enterprise	**CDD:** Concur. Estimated implementation date 12/31/11. Implementation plan to include working with SFPUC ITS personnel to ensure that this option is available with the new version of Maximo 7. ◆ As additional control measures, CDD also perform semi-annual counts using: 1) Inventory valuation reports (before & after inventory), 2) Count sheets (from Maximo), and 3) Reconciliation report. **HHWP:** HHWP will attempt to retain the "Issued from Stores" form as noted in the audit report. However, the reconciliation process suggested by the auditors will be very time consuming, without significantly increasing inventory accuracy. Year-end inventory adjustments totaled $3,992.85 out of a $292,904.98 inventory, or a 1.36% variance. This variance is well within industry standard thresholds, and indicates a high level of accuracy between what is recorded in MAXIMO, and what is actually on the shelf. The finding is intended to further increase this accuracy, but at a labor cost of approximately 260 hours per year, or approximately $10,301. Thus the resource cost of the recommendation greatly outweighs possible accuracy gains. Additionally, there are three processes which provide an accuracy check for miskeyed entries: 1) The Materials and Supplies (M&S) report is distributed to managers on a monthly basis. This report shows inventory supplies that have been distributed to each manager's employees. If a large miskey error has occurred, it would be detected by the manager reviewing the report of monthly expenditures including warehouse issues. 2) Cycle counts – if something has been miskeyed, it would be caught and adjusted as part of the cycle count process. Cycle count adjustment documentation is retained and filed. Additionally, we have requested a monthly inventory adjustment report (which shows all adjustments) from ITS.

Recommendation	Responsible Agency	Response
		3) Annual inventory – if something has been miskeyed it will be adjusted as part of the annual inventory count process. The inventory valuation reports resulting from this process are sent to management for approval at year end.
7. The Enterprise should formally document discrepancies in *Issued from Stores* forms and MAXIMO inventory amounts. Report discrepancies to a supervisor to approve any corrections in MAXIMO.	SFPUC Water Enterprise	**WST:** As stated under recommendation #3, it is an on-going practice at WS&T to reconcile Issued from Stores forms with MAXIMO within a reasonable time period.
		This recommendation requires IT for its creation of a monthly report that could be available through MAXIMO for warehouse staffs. The reconciliation process suggested by the auditors will be very time consuming, without significantly increasing inventory accuracy. The WS&T, the year-end non-fuel inventory adjustments rate of WST was well within an industry standard and as the auditor's reports indicated, the error rate was 0.59%. These factors indicate a high level of accuracy between what is recorded in MAXIMO which does not warrants changing the current practice.
8. The Enterprise should ensure that HHWP retains *Issued from Stores* forms.	SFPUC Water Enterprise	**HHWP**: Agree. We will retain the Stock Request Forms (Issued from Stores) for a period of one fiscal year (in addition to the current year).

Recommendation	Responsible Agency	Response
9. The Enterprise should implement additional supervisory review of WS&T warehouse operations by someone with knowledge of the operation, but who has no custody, or recording responsibilities, such as the manager of the WS&T warehouse, to ensure adequate control over inventory when separation of duties is not possible. This person should review the daily reconciliation of inventory issues to MAXIMO, and results of cycle counts and required adjustments.	SFPUC Water Enterprise	Concur. WST will work toward a resolution to ensure that the separation of duties is implemented in a near future.
10. CDD should improve its tool management practices by doing the following: a. Conduct annual inventories of its tools to update the current inventory list. b. Keep a record of its tool inventory in MAXIMO. c. Assign responsibility for the tool inventories and management to the shop supervisors. d. Develop policies and procedures for tool management.	SFPUC Water Enterprise	**CDD**: Concur. Estimated implementation date 12/30/11. Implementation plan to include identifying responsible persons for overseeing tools inventories; conducting inventory counts; recording information in Maximo; and developing policies and procedures.

Recommendation	Responsible Agency	Response
11. HHWP should improve its tool management practices by doing the following: • Conduct annual inventories of its tools to update the current inventory list. • Consider implementing an electronic tool checkout system. • Complete its policies and procedures for tool management.	SFPUC Water Enterprise	**HHWP**: Agreed. An annual inventory was completed in 2008 and 2009, but was missed in 2010. An annual inventory will be conducted in 2011. An electronic checkout system has been proposed, and we will continue to work to obtain the required resources to implement the proposed system. HHWP agrees to undertake a policies and procedures manual for tool management.

Recommendation	Responsible Agency	Response
12. WS&T should improve its tool management practices by doing the following: • Perform an inventory of all tools in shops and on trucks and record the inventory in MAXIMO. • Conduct an annual inventory thereafter to update the tool inventory. • Assign responsibility for the tool inventory and management of tools to its shop supervisors. • Develop policies and procedures for tool management.	SFPUC Water Enterprise	**WST**: Concur. Estimated implementation date, 10/31/11.

Recommendation	Responsible Agency	Response
13. The Enterprise should develop a dollar threshold for determining which tools need to be secured both in the tool room (at HHWP) and at the division shops. To deter theft, tools above the threshold should be kept in locked cabinets or drawers until needed.	SFPUC Water Enterprise	**CDD**: Concur. Estimated implementation planned for 6/30/11. Input required from Finance and Accounting. **HHWP**: HHWP currently maintains a tool inventory in Maximo of tools with values greater than $100. These tools are inventoried annually, with the exception of 2010. Per the response to question #12 above this tool inventory will be conducted again in 2011. **WST**: Do not concur. WST does not intend to implement this recommendation. It is largely due to a mobile workforce of WS&T whose operating responsibilities are spread out in four Bay Area counties. Therefore, it is not feasible to have only one tool room to meet its operational needs. However, WS&T will monitor inventory of all tolls in shops and on trucks on a regular basis.