FINAL

MANAGEMENT AUDIT REPORT

OF

INVENTORY POLICIES, PROCEDURES & CONTROLS

PUBLIC WORKS DEPARTMENT

REPORT NO. 01-105

Internal Audit

CITY OF ALBUQUERQUE
OFFICE OF INTERNAL AUDIT

Internal Audit

City of Albuquerque

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Internal Audit Committee
City of Albuquerque
Albuquerque, New Mexico

Audit: Inventory Policies, Procedures and Controls
Public Works Department
01-105

FINAL

INTRODUCTION

The Office of Internal Audit performed an audit of the inventory policies, procedures and controls of the Public Works Department (Public Works). The following divisions of Public Works have warehouses or parts storerooms where inventory is maintained for use in the division's operations:

Wastewater Utility Division (Wastewater Utility)

Water Utility Division (Water Utility)

Traffic Engineering Division (Traffic Engineering)
Two warehouses: Signals & Signs

Fleet Management Division (Fleet Management)
Two warehouses: located at 6th Street and Pino Yards

The Public Works divisions have six separate warehouses that use a variety of accounting and control systems to track and account for their inventories. Three of the warehouses have perpetual inventory systems that record the receipt and issuance of items. The other three warehouses do not maintain inventory receipt and issuance records. Some Public Works inventory items are stocked through the City's Internal Services warehouse, which is operated by the Department of Finance and Administrative Services (DFAS).

Improved controls over these inventories and over the receiving and issuance of materials and supplies may result in cost savings.

SCOPE

Our audit did not include an examination of all the functions, transactions and activities related to the inventory policies, procedures and controls of Public Works. Our audit test work was limited to the following areas:

- Review any Public Works' policies and procedures relating to inventories, and determine compliance with the policies and procedures.

- Determine and review the types of inventory accounting and control systems Public Works uses to control and account for its inventories.

- Check for compliance with applicable rules, regulations, and laws.

This audit, and its conclusions, is based on information provided through interviews, tests and reviews of current procedures. We completed our fieldwork on September 5, 2003. We have based this report on our examination of activities through the completion date of our fieldwork, and it does not reflect events after that date.

The audit was conducted in accordance with Government Auditing Standards, except Standard 3.33, requiring an external quality control review.

FINDINGS

The following findings concern areas that we believe could be improved by the implementation of the related recommendations.

1. DFAS AND PUBLIC WORKS SHOULD EVALUATE THE FEASIBILITY OF CONSOLIDATING THE WAREHOUSE OPERATIONS.

   The City's Internal Services warehouse is located at the Pino Yards facility. Public Works also has four warehouse operations located at Pino Yards: a Fleet Management warehouse, a Water Utility warehouse, a Traffic Engineering signs warehouse, and a Traffic Engineering signals warehouse.

   There are problems associated with maintaining so many different warehouse operations.

Multiple warehouses require more staff, physical security issues must be addressed at each location, the hours of operation vary and the inventory control and tracking systems vary.

The Water Utility warehouse has five employees, but does not have an inventory control system. According to the Water Utility warehouse supervisor, approximately 90% of the items that it issues to work crews are obtained from the City's Internal Services warehouse.

The two Traffic Engineering warehouses do not have attendants nor do they have inventory control systems. Traffic Engineering personnel can directly access items in these unattended warehouses. According to Traffic Engineering personnel, approximately 99% of the items that are issued to work crews are obtained from the City's Internal Services warehouse.

There are numerous warehouse employees staffing the City's Internal Services warehouse and the Public Works warehouses that are located at Pino Yards.

Warehouse	Number of Employees	Days of Operation	Hours of Operation
DFAS - Internal Services Warehouse	9	Monday - Friday	6:00a.m. to 4:00 p.m.
PWD - Water Utility	5	7 Days a Week	7:00 a.m. to 5:00 p.m.
PWD - Fleet Management (Pino Yards location)	2	Monday - Friday	6:00 a.m. to 11:00 p.m.
PWD - Traffic Engineering – Signs	0	*	*
PWD - Traffic Engineering – Signals	0	*	*
TOTAL	**16**		

* Traffic Engineering employees have access to the warehouses on an as needed basis 7 days per week, 24 hours per day.

Many City divisions such as Water Utility operate 24 hours per day, seven days a week (24/7). As a result, City workers need access to parts inventories 24/7. It is costly to have each of the warehouses staffed 24/7, so in many cases non-warehouse employees have access to the inventories when warehouse staff is not on duty. If the warehouses at Pino

Yards were consolidated, it might be possible to extend the hours that the warehouse is staffed without increasing the total number of employees.

There are other advantages to consolidating all of the City warehouses. The City's Internal Services warehouse has unused space and potentially underutilized employees. If the individual operations were combined, a single inventory control system could be used to track and monitor all of these City assets. This could help to reduce inventory shrinkage, increase efficiency and reduce costs overall for the City.

RECOMMENDATION

DFAS and Public Works should evaluate the feasibility of consolidating the City's warehouses.

EXECUTIVE RESPONSE FROM ADMINIATRATION

"Under normal conditions, the Administration would agree with the finding. In fact, in prior years, studies have been conducted regarding the feasibility of warehouse consolidation. However, at this time, with a county-wide vote on unification pending in less than a month and the uncertainty related to the newly mandated Albuquerque Bernalillo County Water Utility Authority, it would appear to be imprudent to expend limited resources on such an activity."

WATER UTILITY:

The Water Utility warehouse is located at Pino Yards. Although there are five employees at the division's warehouse, it does not currently have an inventory system, either manual or computerized, to keep records relating to the items in inventory. Water Utility is in the process of implementing a new computerized maintenance management system. This system has an inventory module, which is scheduled for implementation in early 2004. When this inventory module is implemented, the Water Utility warehouse will use this system to keep records relating to its inventory.

According to the Water Utility warehouse supervisor, the value of the inventory in the warehouse is currently approximately $50,000 to $75,000. The supervisor indicated that the value of the inventory is lower than it has been in the past, because of efforts by the division to try to reduce expenses. The warehouse supervisor estimates that approximately 90% of the items that it issues to work crews are obtained through the City's Internal Services warehouse. According to the records of the City's Internal Services warehouse, in FY2002 $1.3 million of items were issued to the

Water Utility.

2. PUBLIC WORKS WATER UTILITY SHOULD PERFORM A COMPLETE PHYSICAL INVENTORY PRIOR TO IMPLEMENTING THE INVENTORY MODULE OF THE NEW COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM.

The Water Utility operates a warehouse that stocks materials and supplies for the operations of the division. In addition to the materials and supplies that are stocked in the Water Utility warehouse, the warehouse employees also obtain materials and supplies from outside vendors, and the City's Internal Services warehouse, to issue to Water Utility work crews.

The Water Utility warehouse does not currently have an inventory system, either manual or computerized, to keep records of the items in its physical inventory. It does maintain records of materials and supplies issued to work crews, by using a standard material requisition form. Water Utility supervisors prepare this material requisition form, and the warehouse employees use this document as the only record of the issuance of the materials and supplies that have been requested. However, there is no perpetual record of the inventory on hand and the requisitions are not reconciled with any other records to ensure that all inventory items are properly accounted for.

The Water Utility is in the process of implementing the Computerized Maintenance Management System (CMMS-MAXIMO). This system has an inventory module. The inventory module was originally scheduled to be implemented by June 2003, but has been rescheduled for implementation in early 2004. When this inventory module is implemented, the Water Utility warehouse will use this system to keep records relating to its inventory.

The Water Utility must have accurate records of its inventory quantities on hand when it implements the new computerized inventory system, in order to be able to effectively begin using the new system. The inventory quantities on hand must be entered into the new system's database, to provide beginning inventory balances. Prior to the implementation, the Water Utility must perform a 100 percent physical inventory in order to have accurate beginning inventory quantities. The Water Utility warehouse supervisor is aware of the need for the warehouse employees to perform a complete physical inventory. She estimates that it will take three days to perform the inventory.

After the Water Utility warehouse converts to the new CMMS-MAXIMO inventory module, it will be necessary for warehouse personnel to perform periodic inventory cycle counts, to help maintain the accuracy of the inventory records. An inventory cycle count is

a process whereby a portion of the inventory items is physically counted each month, and over a period of time all of the items in the inventory are counted. When errors in the inventory records are identified by a cycle count, the cause of the discrepancy can be investigated and the inventory records can be corrected. It is a typical practice in warehouse operations for the warehouse personnel to perform cycle counts over a period of 12 months, which cover all of the items in an inventory.

It would also be appropriate for the Water Utility warehouse supervisor to evaluate the feasibility of performing an annual 100 percent physical inventory. Other City departments and divisions perform this process to help ensure the accuracy of their inventory records. Currently, the Water Utility warehouse employees do not perform either cycle counts, or an annual 100 percent physical inventory because there are not any inventory records in this division to compare with the results of any inventory physical counts.

The Water Utility warehouse does not have written procedures. Written procedures can help to ensure that all warehouse employees know their job responsibilities, and the impact of their work on the accuracy of inventory transactions. When the Water Utility warehouse implements the CMMS-MAXIMO inventory module, written procedures should be prepared that identify the processes and responsibilities of the different functions in the warehouse. The Water Utility warehouse supervisor should also consider the feasibility of preparing written procedures that identify the current processes in the warehouse.

RECOMMENDATION

Public Works management should ensure that Water Utility warehouse employees perform a 100 percent physical inventory, prior to implementing the inventory module of the CMMS-MAXIMO. This is necessary in order to have accurate beginning inventory quantities for initial entry to the new inventory system.

Public Works should ensure that subsequent to the implementation of the new inventory module, warehouse personnel cycle count all inventory items during each following 12-month period. The Water Utility warehouse supervisor should also evaluate the feasibility of performing an annual 100 percent physical inventory.

Public Works should prepare written inventory procedures for Water Utility employees' use with the CMMS-MAXIMO inventory module. The written procedures should identify the processes and responsibilities of the different functions in the warehouse. The Water Utility warehouse supervisor should also consider the feasibility of preparing written procedures that identify the current processes in the warehouse.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. PWD Water Division will do a 100% physical inventory prior to implementing the inventory module of the CMMS-MAXIMO system. Also, the Water Division will use the employee work plan process to implement cycle counts during each 12-month period after implementation of the CMMS-MAXIMO inventory module. At this time, the Water Division plans on implementing the CMMS-MAXIMO inventory module in the early part of 2004. Written inventory policies should be completed concurrently with the module implementation."

FLEET MANAGEMENT:

Fleet Management has a warehouse located at Pino Yards in Building G and a warehouse located at the 6th Street Garage. According to Fleet Management's computerized inventory system, this division's warehouses issued $987,000 of parts in FY2002. As of June 2002, the inventory records indicated that its inventory value was $246,677.

3. PUBLIC WORKS FLEET MANAGEMENT SHOULD REVIEW THE POTENTIAL CAUSES FOR INVENTORY QUANTITY DISCREPANCIES.

Fleet Management utilizes a computerized maintenance management system (Fleet Anywhere), which was implemented during FY2001. This system tracks maintenance and repair work orders and has an inventory module.

Fleet Management performs an annual 100 percent physical inventory, in addition to performing monthly inventory cycle counts. The complete physical inventory at the end of FY2002 (June 2002) resulted in a small net inventory adjustment of approximately $1,200.

The previous 100 percent physical inventory was performed at the end of FY2001 (June 2001). The net inventory value reduction relating to this complete physical inventory was approximately $114,000. A significant portion of this adjustment was related to Fleet Management making incorrect monthly entries to the City's general ledger accounting system to record the cost of parts issued to work orders. An undetected software problem in the new Fleet Anywhere system resulted in erroneous parts issuance cost information being used in making these monthly general ledger entries. Fleet Management does not know what portion of the FY2001 adjustment was caused by this problem. Fleet Management resolved this problem, and instituted stronger controls over the recording of parts issuance transactions in the inventory system. As a result, the FY2002 complete physical inventory

resulted in only a small inventory adjustment. The FY2003 complete physical inventory resulted in a reduction of inventory value of approximately $20,000. A portion of this adjustment was related to an inventory theft in November 2002 (see Finding No. 12).

Fleet Management has written parts policies and procedures, which were last updated in May 2002. This is the only Public Works division that has written inventory procedures. The procedures include controls over the recording of parts receipts and issuance.

The source document utilized for the recording of parts issuance transactions in the computerized inventory system, is called a parts recap sheet. When parts are issued to mechanics, the parts storeroom employee manually records this information on a parts recap sheet. When the work order is complete, the shop foreman reviews the work order information for completeness, and then enters the information from the parts recap into the Fleet Anywhere system. Then the parts recap sheets are sent to a clerk in the division's Materials Management section, who accesses the information in the computerized inventory system, to verify that the shop foremen correctly entered the parts issuance information. Fleet Management instituted this procedure because of the large number of incorrect parts issuance entries being made in the computerized inventory system. This process continues to catch errors made by shop foremen in the recording of parts issuance transactions in the computerized inventory system.

A similar verification process is performed by the same clerk, in the division's Materials Management section to verify that parts storeroom employees correctly entered parts receipt information into the computerized inventory system. Although this verification process helps to ensure the accuracy of parts receipt and issuance transactions in the computerized inventory system, it does require labor hours of a Fleet Management employee to verify that other employees correctly did their jobs.

The auditor performed inventory test counts of twenty-five inventory line items. The auditor and Fleet Management personnel physically counted the items. Each inventory line item is a different type of part, such as a water pump that fits a particular model of vehicle. The line items that were test counted were high dollar value items, judgmentally selected. The total number of parts in these 25 inventory line items was 163. Ten of the 25 inventory line items had differences between the number of items in the Fleet Management inventory records, and the number of items physically present in the inventory. The audit test counts totaled 139 parts, rather than the 163 parts listed in the inventory records. The total inventory value of these 25 line items was listed in the Fleet Management records as $26,306. The 24 missing parts were valued at $3,061.

Fleet Management has a control structure to ensure the correct recording of parts received

and issued. However, there continue to be quantity discrepancies for parts. This indicates that the discrepancies may be due to theft or other loss, rather than data entry errors. Many of the parts in the Fleet Management inventory are for vehicles of the same makes and models as are used by the public. Therefore, there is a market for many of the items carried in the Fleet Management inventory. It appears that there may be weaknesses in the physical security of the parts at the Fleet Management warehouse.

RECOMMENDATION

Public Works Fleet Management should review the possible causes for the quantity discrepancies in its parts inventory and implement corrective actions to mitigate the causes.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. Fleet Management is in the process of reviewing the possible causes for the quantity discrepancies in its parts inventory. Corrective actions will be instituted as appropriate. Fleet Management will complete this activity by the end of the fiscal year."

TRAFFIC ENGINEERING:

Traffic Engineering has two parts storerooms (warehouses) that are both located at Pino Yards. One storeroom is for traffic signals; the other is for signs. This division's storerooms do not currently have inventory systems, either manual or computerized, to keep records relating to the items in inventory.

Traffic Engineering personnel indicated that the value of the inventory in their warehouses is approximately $50,000. According to Traffic Engineering personnel, approximately 99% of the items that are issued to work crews are obtained through the City's Internal Services warehouse. According to the records of the City's Internal Services warehouse, in FY2002 $410,000 of items were issued to Traffic Engineering.

4. PUBLIC WORKS TRAFFIC ENGINEERING SHOULD EVALUATE THE FEASIBILITY OF IMPLEMENTING THE INVENTORY MODULE OF THE WORK MANAGEMENT SYSTEM.

Traffic Engineering operates a signs warehouse and a signals warehouse. Signals are

stoplights, etc. Signs are items such as stop signs, street name signs, speed limit signs, etc. The signs warehouse has employees who make some of the signs that are issued to work crews, such as street name signs. The employees who make signs also issue signs materials to work crews, and maintain a log of the items that are issued if the materials are requested while they are on duty.

The signals warehouse does not have employees who issue and record materials and supplies, so the work crews who need signals material obtain the materials themselves. There is not any record in the signals warehouse, which would be similar to the signs warehouse log, that the issuance of materials is recorded on. However, there are technicians in the signals warehouse who work on the repair and assembly of electrical/electronic components that are used by Traffic Engineering. The division could consider having these employees maintain an inventory system, which records the materials and supplies that are issued to work crews from this warehouse.

Traffic Engineering does not currently have an inventory system, either manual or computerized, to keep records of the items coming in and issued from its physical inventory. It does maintain records of materials and supplies that are used by work crews. This information is contained in work orders. However, these controls do not effectively compensate for the lack of an inventory system that records receipts and issues, and provides information regarding the quantities of items on hand in the physical inventory. Traffic Engineering employees do not perform either cycle counts, or an annual 100 percent physical inventory because there are not any inventory records in this division to compare with the results of any inventory physical counts. Additionally, there are not written inventory-related procedures.

Traffic Engineering is in the process of implementing a computerized Work Management System. This system is a work order and maintenance tracking system that also has an inventory module. Traffic Engineering is currently in the process of installing the work order portion of the system, but does not have any specific plans to implement the inventory module of the Work Management System.

Traffic Engineering also has an outside storage area in which large items are stored. Some of the items in this yard are previously used. These are items such as large aluminum poles for traffic signals, which are left over when Traffic Engineering changes the traffic signals at an intersection and needs to use different types of poles. When these types of items are removed from an intersection, they are brought back to the Traffic Engineering storage area, and the division attempts to reuse them for another job. Because the traffic signal poles are made of aluminum, they have a market value even though they are used. Traffic Engineering does not have a tracking process, to ensure that items such as these that have a

market value are always returned to the division's storage area for later reuse.

RECOMMENDATION

Public Works should evaluate the feasibility of implementing the inventory module of the Work Management System at Traffic Engineering.

Public Works management should consider integrating the inventory operations of Traffic Engineering with the DFAS Internal Services Warehouse.

Public Works management should ensure that Traffic Engineering prepares written inventory procedures for inventory control. The written procedures should identify the processes and responsibilities of the different inventory-related functions.

Traffic Engineering should implement a tracking process, to ensure that items such as used aluminum signal poles that have a market value, are always returned to the division's storage yard for later reuse.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. The Traffic Engineering Division is working with PWD IT personnel to develop a database that can function as an inventory module for the Division. In addition, Traffic Engineering will develop and implement a tracking process that ensures that used items with a market value be returned to the Division's storage yard for possible later reuse. For the reasons discussed under Recommendation 1, we will not undertake a feasibility study of integrating warehouse operations at this time."

WASTEWATER UTILITY:

The Wastewater Utility warehouse is located at the Southside Water Reclamation Plant on Second Street SW. The Wastewater Utility has a computerized perpetual inventory system According to the computerized inventory system, this division's warehouse issued $4.2 million of items in Fiscal Year (FY) 2002. This amount may not be accurate, because the division's warehouse has had some difficulty in maintaining accurate inventory records.

The Wastewater Utility is going to convert to the CMMS-MAXIMO system that has been purchased by the City. This new system has been partially implemented in the Water Utility. The Wastewater Utility has been authorized to spend $329,000 for the costs of implementing this

system in that division. The CMMS-MAXIMO has an inventory module that is scheduled to be implemented in early 2004.

The findings numbered 5 through 10 apply to the operation of the Wastewater Utility warehouse.

5. PUBLIC WORKS WASTEWATER UTILITY SHOULD IMPROVE THE ACCURACY OF ITS INVENTORY QUANTITIES.

When the Wastewater Utility converts to the new computerized inventory system, it must have accurate records of its inventory quantities on hand, in order to be able to effectively begin using the new system. The inventory quantities on hand must be entered into the new system's database to provide beginning inventory balances for the new system.

As of October 2000, the Wastewater Utility inventory records reflected that the division had an inventory value of $2 million. As of July and September 2002, respectively, the division's inventory records indicated that its inventory value was $4.7 million and $893,000. These fluctuations in recorded inventory values are due to problems with the accuracy of the inventory records of this division.

The auditor performed test counts of the Wastewater Utility inventory. A sample of 25 inventory line items valued in the Wastewater inventory listing at $177,686 was selected for testing. Each inventory line item is a different type of part, such as a valve that fits a particular type of equipment. The line items that were test counted were high dollar value items, judgmentally selected. The warehouse supervisor and the auditor physically counted the quantities of these items.

In seven of the 25 cases, there was a difference between the quantity of the line item reflected in the Wastewater inventory listing, and the quantity that the warehouse employee and the auditor counted. The total number of parts in these 25 inventory line items was 386.

The audit test counts totaled 395 parts, nine more than the number of parts listed in the inventory records. Some of the inventory line items that had incorrect quantities had more

items listed in the inventory records than were actually on the shelf. Other inventory items had fewer items listed in the inventory records than were actually on the shelf. There was actually $10,307 more in inventory value on the shelves than was listed in the inventory records related to these quantity differences.

On a subsequent occasion, the auditor and the warehouse supervisor performed additional audit test counts. In this case, there were quantity differences in eleven out of 20 inventory line items. The line items that were test counted were high dollar value items, judgmentally selected. The total number of parts in these 20 inventory line items, according to the inventory records, was 6,709. However, the audit test counts totaled 54 parts, rather than the 6,709 parts listed in the inventory records. One of the line items in the inventory test counts caused most of these differences. This item was listed in the inventory records as having a quantity of 6,411. However, there were actually only 2 of these items physically in the inventory. At a per unit price of $580, this error caused the inventory records to overstate the value of the inventory by approximately $3.7 million. The other quantity differences, between the inventory records and the actual number of parts on the shelves, caused the inventory value to be overstated by an additional $87,000.

The inaccuracies in the quantities in the Wastewater Utility warehouse's inventory records appear to have been caused by several factors, as follows:

Recording the Issuance of Parts

Parts have been issued, but the issuance of the items has apparently not been recorded in the inventory records. The combined sample of 45 inventory test counts identified four different line items, where the parts had actually been issued by the warehouse, but the inventory records indicated that the items were still in stock. For example, for one inventory line item, the warehouse records indicated a quantity on hand of 210 as of July 2002 with a total value of $6,314. There were actually none of these items in the inventory. The warehouse supervisor's research indicated that the parts had been issued in 2000, however the issuance was not reflected in the inventory balance.

Three other cases were identified in the sample, where items had been physically received, but were no longer physically present in the warehouse inventory. It could not be determined whether these items had been issued, or if there was some other reason that the items were no longer in the warehouse inventory.

Difference between Requested Quantity and Issued quantity

When a work crew in the Wastewater Utility needs parts or materials, a supervisor will prepare a material requisition, which the warehouse will then fill. Some material requisitions reflected a difference in quantity between the number of the items requested, and the number of the items actually issued. According to the warehouse supervisor, this

can happen if there are not enough units of the item in stock to fill the total request. The warehouse will partially fill the order with the number of items that are available from the warehouse stock.

The auditor reviewed a sample of 10 material requisitions that had been filled by the warehouse. In two cases, the inventory system records indicated that a larger quantity of the items had been issued, than was actually issued. These two cases were situations where the quantity requisitioned had been reduced, or there were not enough items in the warehouse stock to fill the order. In these two cases, the inventory system records showed the quantity issued as the number originally requested, not the smaller number actually issued. According to the Wastewater Utility computer systems employee who works with this system, in these cases, the warehouse employees could actually enter the correct number issued into the inventory system's records. However, this was not being done.

When a warehouse employee fills a material requisition, that employee is supposed to make a notation on the requisition regarding the quantity of the items actually issued. In the audit sample of ten material requisitions, there were four cases in which the warehouse employee did not make a notation on the material request that identified the actual quantity of the items issued. If the number issued was actually less than the requested quantity, the inventory records would not be adjusted.

Annual Physical Inventories and Periodic Cycle Counts

Warehouse personnel do not perform annual 100 percent physical inventories, as do some other divisions or departments in the City. The Wastewater utility personnel do perform inventory cycle counts every month, but it appears that these cycle counts are not identifying and correcting all of the errors in the inventory records. An inventory cycle count is a process whereby a portion of the inventory items are physically counted each month. Over a period of time all of the items in the inventory should have been counted in cycle counts. When errors in the inventory records are identified by a cycle count, the inventory records should then be corrected.

It is a typical practice in warehouse operations for warehouse personnel to perform cycle counts that cover all of the items in an inventory during a 12-month period. It appears that the Wastewater Utility warehouse is not adhering to this typical practice. Consequently, the cycle counts that are performed are not catching all of the errors in the inventory records on a timely basis. Several errors in the inventory records were very old.

For example, as of July 2002, the inventory system listed one item as having a quantity on hand of 28 units, with a total inventory value of $7,000. However, there were not any of these items actually in stock. The warehouse supervisor indicated that these items have not been physically present in the inventory for at least five years. The inventory system showed several other different warehouse items as still being in stock, as of July 2002, although the items had apparently been issued several years ago.

In another instance, a cycle count was performed of an item in January 2002. The inventory system indicated that there was a quantity of four of the items on hand. The employee who performed the cycle count identified that there were only two of the items actually on hand. However, when he made an adjustment in the inventory records, he incorrectly entered that there were 6,411 of the items on hand.

The Wastewater Utility warehouse should ensure that cycle counts cover all of the items in its inventory every 12 months. This will help to ensure the accuracy of its inventory records. Additionally, the warehouse personnel should consider the feasibility of performing an annual 100 percent physical inventory.

RECOMMENDATION

Public Works should ensure that the Wastewater Utility warehouse supervisor review, with the warehouse employees who enter parts receipts and parts issues information into the inventory system, the correct practices and processes for entering this information.

Public Works should ensure that the Wastewater Utility warehouse supervisor review, with the warehouse employees who fill material requisitions, the necessity of making notations on the material request identifying the actual quantity of the items issued.

Public Works should ensure that the Wastewater Utility warehouse performs cycle counts of all items in the warehouse prior to the conversion to the new inventory system. Subsequent to the conversion to the new system, Warehouse personnel

should ensure that all items are cycle counted during each following 12-month period.

Public Works should ensure that the Wastewater Utility warehouse supervisor also evaluates the feasibility of performing a 100 percent physical inventory count prior

to the conversion to the new inventory system.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. PWD Wastewater Division will do a 100% physical inventory prior to implementing the inventory module of the CMMS-MAXIMO system. Also, the Wastewater Division will use the employee work plan process to implement cycle counts during each 12-month period after implementation of the CMMS-MAXIMO inventory module, as well as provide refresher/update training on proper inventory control procedures."

6. PUBLIC WORKS SHOULD ENSURE THAT WASTEWATER INVENTORY RECORDS REFLECT THE CORRECT VALUE FOR ITEMS.

We performed test counts of a sample of 45 items listed in the inventory records. One of the line items in the inventory test counts had the same quantity on the shelf, as was listed in
the records. However, the per-unit price of $162.78, listed in the inventory records, was incorrect. The correct per unit price was $0.65. This price error caused the value of this line item in the inventory to be overstated by $3,729.

Other inventory items were listed in the inventory records at incorrect prices. For example, one inventory line item was reflected in the inventory records as having a last purchase price of $18,741 each, when the correct last purchase price was actually $5.75 each. Several other significant errors were noted relating to the accuracy of the last purchase price reflected in the records of the inventory system.

The inaccuracies in the values for the items in the Wastewater Utility warehouse's inventory records appear to have been caused by several factors, as follows:

Recording the Receipt of Parts

When parts were received by the warehouse and added into the inventory records, in some cases the purchase price of the parts was not correctly recorded in the inventory records. The 45 sample inventory test counts identified four line items, where the inventory records did not have the last purchase price of the item correctly recorded. For example, for one

inventory line item, the inventory records indicated that the last purchase price of the item was $9,871. However, the correct last purchase price was actually $987. At least some of the incorrect parts prices in the inventory system appear to be caused by input errors by warehouse personnel.

We selected a random sample of 11 inventory line items where the last time that the item was purchased was in 2002. We reviewed the vendor's invoice, or other supporting documentation, to determine if the correct price for the item had been entered into the Wastewater Utility's inventory system. In three of the eleven cases, warehouse personnel entered incorrect prices into the system. For example, in May 2002, the warehouse purchased twenty units of an inventory line item. This item was priced by the vendor at $37.67 per box of ten, or $3.77 each.. However, warehouse personnel entered a per unit price of $37.67 into the warehouse inventory system.

Items in the Inventory Records with no Price Information

As of July 2002, the Wastewater Utility had approximately 6,000 line items in its inventory records, with a quantity in-stock of greater than zero. There were approximately 1,500 line items that had a last purchase price of $0 in the inventory system. Additionally, there were approximately 500 items with a last purchase price of $0.01. The description of these items indicates that it is unlikely that they were purchased for a penny.

Procedures to review inventory records for obvious pricing and quantity errors

The Wastewater Utility warehouse does not have effective procedures in place for warehouse personnel to review the inventory records for obvious pricing and quantity errors. Warehouse personnel should be periodically generating a list of all line items in the inventory and scanning the list for obvious pricing errors and quantity on-hand information that appears to be suspect. The warehouse employees could then investigate any obvious errors and correct them.

On several different occasions, the auditor obtained a complete inventory listing from Wastewater Utility personnel, and identified a number of possible errors that he and the warehouse supervisor researched. This cursory review identified errors such as the following: The inventory records indicated that for one line item, there were 70,808 of the items on hand. Research indicated that this quantity was significantly overstated. Several other similar errors were detected through this process.

RECOMMENDATION

Public Works Wastewater Utility should review the line items in its inventory records that do not have prices recorded in the system, and at a minimum, ensure that items that have frequent turnover have a price recorded in the system.

Public Works should develop review procedures to detect obvious pricing and quantity errors. This process should include warehouse employees periodically obtaining a listing of all items in the inventory, and scanning the list for obvious errors.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. Price and quantity reports will be part of the new CMMS-MAXIMO inventory module. These reports will be reviewed for obvious pricing and quantity errors and inventory records will be corrected by the Wastewater Division warehouse supervisor."

7. THE PUBLIC WORKS WASTEWATER UTILITY WAREHOUSE SHOULD PREPARE WRITTEN PROCEDURES.

The Wastewater Utility warehouse does not have written procedures. Procedures manuals can help to ensure that all warehouse employees know their job responsibilities, and the impact of their work on the accuracy of inventory records. Written procedures can serve as a training manual and reference when there is turnover in the warehouse personnel. Preparing written procedures may also help warehouse personnel identify problems with the current processes that have affected the accuracy of the current system's inventory records.

When the Wastewater Utility warehouse converts to the CMMS-MAXIMO inventory system, written procedures should be prepared that identify the processes and responsibilities of the different functions in the warehouse.

RECOMMENDATION

Public Works should ensure that the Wastewater Utility warehouse supervisor prepares written procedures to document the current processes in the warehouse to help warehouse personnel improve the accuracy of the current system's inventory records.

Public Works should ensure that when the Wastewater Utility warehouse converts

to the CMMS-MAXIMO inventory system, written procedures are prepared by the warehouse supervisor to identify the processes and responsibilities of the different functions in the warehouse.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. At this time, the Wastewater Division plans on implementing the CMMS-MAXIMO inventory module in the early part of 2004. Written inventory policies should be completed concurrently with the module implementation."

8. THE PUBLIC WORKS WASTEWATER UTILITY SHOULD ENSURE THAT THERE IS ADEQUATE SEPARATION OF DUTIES.

The Wastewater Utility warehouse has five employees. All of these employees physically issue parts to work crews, and record the issuance of these parts on the computerized inventory system records. These employees also perform cycle counts and make any correcting errors that are necessary as a result of the counts.

This lack of separation of duties is an internal control weakness, because the same person who issues parts should not record the transaction in the inventory records. If the duties are not separated, the control weakness can result in improper transactions being recorded in the inventory records to cover the improper or unauthorized issuance of parts. Additionally, errors can easily be covered up at the time of the cycle counts without further investigation.

RECOMMENDATION

Public Works Wastewater Utility should separate the duties of issuing parts, from the recording the issuance of these parts in the inventory system records. Someone who does not have entry access to the inventory system records should perform cycle counts.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. The issue of separation of duties will be addressed in the written inventory policies to be developed in connection with the implementation of the CMMS-MAXIMO inventory module. Given staffing levels, the level of separation of duties desired by internal audit standards may not be fully achievable."

9. PUBLIC WORKS SHOULD DISPOSE OF OBSOLETE INVENTORY ITEMS.

According to the Wastewater Utility warehouse supervisor, there are items in the warehouse that are obsolete. The obsolete items are spare parts for machinery or equipment that is no longer in use in the plant. The warehouse supervisor stated that approximately four years ago, he made a list of the obsolete items and requested permission from Wastewater Utility Management to eliminate the items from the inventory, and send the items to the City's surplus and salvage program. He stated that he did not receive a response to his request, so the obsolete items are still in the warehouse inventory.

Administrative Instruction No. 6-2 establishes the procedures for disposing of obsolete inventory. According to the Administrative Instruction 6-2, Section 2.C.:

> **Repair parts** declared **surplus** by the user department due to obsolescence but which are still functional or new (unused) shall:
>
> Be made available to all departments by the user department prior to transfer to surplus status. To ensure that a need does not exist on a City wide basis, the user department must provide a written notice which must include a listing of the items and the intent to declare such surplus
>
> Subsequent to the determination that the obsolete items (new) are not required on a City wide basis, they shall be made available to the supplier(s) of such for 1) cash reimbursement in an amount equivalent to the market value of the items minus a restocking charge, 2) credit equivalent to the market value of the items minus a restocking charge, 3) exchange for like items of equivalent value minus a restocking charge.
>
> Items not required by any City department, or which have been rejected by suppliers of such on an equivalent value basis, may be turned in as **surplus** to the Internal Services Section….

Some vendors will only allow returns within a certain period of time after purchase. Therefore, it is important to identify obsolete inventory promptly. A four-year delay in attempting to return inventory items, will likely result in a significant reduction in market value.

RECOMMENDATION

Public Works should develop procedures to promptly identify obsolete inventory.

The Public Works Wastewater Utility warehouse supervisor should prepare a list of obsolete materials in the inventory, and request that these items be removed from the inventory and disposed of in accordance with Administrative Instruction No. 6-2.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. The Wastewater Division warehouse supervisor will promptly be tasked with identifying obsolete inventory for the purpose of having it removed from the warehouse in advance of the implementation of the CMMS-MAXIMO inventory module. Further, the issue of early identification of obsolete inventory will be addressed in the written inventory policies to be developed in connection with the implementation of the CMMS-MAXIMO inventory module."

10. PUBLIC WORKS SHOULD ENSURE THAT THE NEW AND OLD INVENTORY SYSTEMS RUN PARALLEL FOR AN APPROPRIATE TIME PERIOD.

The current computerized inventory system for the Wastewater warehouse was placed into service in May 1999, according to the warehouse supervisor. He stated that the system implementation plan had intended that both the new system and the old system be operated simultaneously for a period of time. This action was intended to help identify problems with the new system, and ensure that the new system was operating correctly and recording inventory transactions properly. This is a common practice in the implementation of new computer systems, commonly called "running parallel". However, when the new system started being used, a decision was made to immediately discontinue use of the old system.

According to the Wastewater computer systems personnel, the current system has had several problems recording inventory transactions, specifically quantity and price. However, the problems have been corrected and currently there are not any system problems that would affect the ability of the system to correctly record inventory transactions.

When the Wastewater Utility warehouse converts to the CMMS-MAXIMO inventory system, it should run both systems parallel for a period of time, to help identify any problems with the new system, and to ensure that the new system is operating correctly and

recording inventory transactions properly.

RECOMMENDATION

Public Works Wastewater Utility warehouse should run the new and the old inventory systems parallel for a period of time when it converts to the CMMS-MAXIMO inventory system.

EXECUTIVE RESPONSE FROM PUBLIC WORKS

"PWD concurs. The implementation plan for CMMS-MAXIMO will include a provision for running parallel for a period of time."

11. DFAS SHOULD IMPLEMENT CONTROLS TO ENSURE THAT CITY SUPERVISORS CAN REVIEW PURCHASES MADE BY THEIR EMPLOYEES FROM THE CITY'S INTERNAL SERVICES WAREHOUSE VIA THE ELECTRONIC REQUISITION SYSTEM.

The DFAS maintains an Internal Services warehouse that all departments and divisions in the City can order materials and supplies through. During 1999, the Internal Services warehouse went to an "on-line" electronic requisition system. Using this system, a City employee who is an approved user can requisition items from the Internal Services warehouse electronically. Supervisory review and approval of the specific order is not required before the order is placed.

The electronic requisition process simplified the process with which materials and supplies can be obtained from the City's Internal Services warehouse, but it reduced the approval controls over the process. Under the old paper requisition system, City supervisors would review and approve the requisitions before the Internal Services warehouse employees filled the orders. The online requisition system does not readily allow for this supervisory review and approval. The Internal Services warehouse supervisor agreed that this is a problem for

all supervisors in the City. He said that the situation is supposed to be corrected in a future fix of the computerized warehouse requisition system. The problem has not yet been fixed.

Administrative Instruction No. 3-1-1A, Signature Authority (Public Purchases), states, "this Administrative Instruction describes the signature authority for specified documents related to the City's purchase of goods, services and construction. . . . Signature authority as assigned in this Administrative Instruction may be delegated in writing by the official with

the assigned authority to any supervisory employee under his or her direction."

The employees who place online orders with the City's Internal Services warehouse, via an electronic requisition, may not necessarily have been delegated the authority to approve purchases, as required by the Administrative Instruction. The Traffic Engineering Field Operations Supervisor expressed his concern that he can no longer easily review the items that are requisitioned by his employees (for appropriateness of the items requisitioned and to make sure that the correct account/project in the City's general ledger system is charged).

During the 13-month period from October 1999 through October 2000, Traffic Engineering employees ordered $561,000 of "immediate delivery" materials and supplies through the City warehouse, via electronic requisitions. These "immediate delivery" materials and supplies were picked up by Traffic Engineering personnel, from the City warehouse, as soon as the vendors delivered the items to the City warehouse.

Water Utility and Traffic Engineering personnel order significant amounts of materials and supplies through the City warehouse, via electronic requisitions. During FY2002, Traffic Engineering personnel obtained approximately $410,000 of materials and supplies from the City's Internal Services Warehouse via electronic requisitions. Water Utility personnel obtained approximately $1.3 million of materials and supplies via electronic requisitions.

The City is in the process of implementing another electronic requisition system with an outside vendor, who sells office supplies to City departments, and delivers the supplies directly to the employee who ordered the supplies. In this situation, there are approval controls built into the system. Supervisors can require that electronic requisitions, which are generated by their employees, be electronically routed to the supervisor, for review and approval via an electronic signature, before the vendor fills the order. This type of approval control process provides safeguards that do not exist in the City Internal Services warehouse's electronic requisition system.

RECOMMENDATION

DFAS should implement controls to ensure that City supervisors can review purchases made by their employees from the Internal Services warehouse, via electronic requisitions, prior to the order being filled by the warehouse.

EXECUTIVE RESPONSE FROM DFAS

"DFAS concurs that supervisors should review items requisitioned from the warehouse. However, the Department does not agree that electronic requisitions should necessarily be approved prior to the order being filled by the warehouse for two primary reasons. First, COGNOS allows end users to access reports to track their requisitions from the Internal Services warehouse. Second, advance approval may not be cost effective for one or more of the following reasons:

"1. The total dollar value of electronic requisitions has averaged 1.5% of all purchasing related expenses since the inception of online requisitions in FY/00.

2. While requisitioned items must periodically be restocked, the items requisitioned by the departments do not result in immediate disbursement of funds to a vendor.

3. All items requisitioned and processed are immediately available the next day for review and exception reporting by supervisors. Supervisors can view items requisitioned by requestor, dollar amount, inventory item, department, warehouse, general ledger account, inventory type, etc. They can also perform trend analysis on any of these data items since FY/00.

4. If advance supervisory approval were to become an audit/control requirement, it would require system and process enhancements resulting in a higher transaction unit cost.

"DFAS agrees that supervisors should monitor transactions using the available system reports, whether it is on a daily, weekly or monthly basis and will remind department directors of the availability of COGNOS as a management control tool. The overall issue of requisition approval will be addressed when the City implements a new financial system."

12. MISCELLANEOUS FINDING.

The following finding does not require a response from the Public Works Department. However, action to improve this area should be considered as an additional way to improve departmental compliance and controls.

In November 2002, approximately $5,500 of tires were stolen from the Fleet Management

Division 6th street garage. The Fleet Management Division did report this theft to the Albuquerque Police Department, which conducted an investigation. However, the theft was not reported to the Internal Audit Department, as required by Administrative Instruction No. 1-6. This Administrative Instruction states, "City employees and officials shall promptly notify the Internal Audit Officer of instances of theft or other disappearance of cash, checks, or property, of misfeasance or nonfeasance, defalcations, and non-compliance with laws and City regulations of which they are aware."

The Public Works Department should report all thefts to Internal Audit.

CONCLUSION

By implementing these recommendations, Public Works will more correctly administer its inventories and increase control over City assets. We appreciate the assistance and cooperation of Public Works personnel during the audit.

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Principal Auditor

REVIEWED AND APPROVED:

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Debra Yoshimura, CPA, CIA, CGAP
Internal Audit Officer

APPROVED FOR PUBLICATION:

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Audit Committee Chairman