



# City of Chattanooga

Stan Sewell  
Director

INTERNAL AUDIT  
City Hall  
Chattanooga, Tennessee 37402

Ron Littlefield  
Mayor

**December 1, 2010**

**Mayor and City Council  
City of Chattanooga  
Chattanooga, TN 37402**

**RE: Moccasin Bend Inventory, Audit 10-03**

**Dear Mayor Littlefield and City Council Members:**

**Attached is the Internal Audit report on Moccasin Bend Inventory.**

**We thank the Public Works Department for their cooperation and assistance during this audit.**

**Very truly yours,**

**Stanley L. Sewell, CPA, CGFM  
Director of Internal Audit**

**cc: Dan Johnson, Chief of Staff  
Daisy Madison, City Finance Officer  
Vickie Haley, Assistant Finance Officer  
Steve Leach, Public Works Administrator  
Jerry Stewart, Waste Resources Director  
Audit Committee**

**MOCCASIN BEND  
INVENTORY  
AUDIT 10-03  
October 18, 2010**

**MOCCASIN BEND  
INVENTORY  
AUDIT 10-03**



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**Auditor**



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**Director**

# **MOCCASIN BEND INVENTORY AUDIT 10-03**

## **INTRODUCTION**

The Waste Resources Division of Public Works consists of two sections: the Interceptor Sewer System and the Solids Waste and Sanitation section. The Interceptor Sewer System encompasses about 1,200 miles of sewer lines, and includes 60 pumping stations, 7 storm stations, 130 residential grinder stations, 7 combined sewer overflow facilities and the Moccasin Bend Wastewater Treatment Plant. The Interceptor Sewer System services the City of Chattanooga and its surrounding metropolitan area. The City maintains an inventory warehouse of parts, equipment, etc. to support the operations of its Moccasin Bend plant.

## **STATEMENT OF OBJECTIVES**

The objectives of this audit are to determine if:

1. The inventory is acquired utilizing the City's procurement policies/procedures.
2. All inventory adjustments made are properly documented and authorized.
3. All inventory items are adequately secured and safeguarded.
4. A perpetual inventory system is in place.

## **STATEMENT OF SCOPE**

The audit period covered operations at the Moccasin Bend Inventory Warehouse from July 1, 2009 through June 30, 2010.

## **STATEMENT OF METHODOLOGY**

We met with staff and conducted on-site inspection at the Moccasin Bend Wastewater Treatment Plant to obtain an understanding about the inventory process. We reviewed the report that resulted from year-end inventory test counts conducted by the City's External Auditors, assisted by Internal Audit staff. We also reviewed inventory reports, the related supporting documentation, BANNER accounting system data, and ORACLE accounting system data to obtain information about the inventory process.

## **STATEMENT OF AUDITING STANDARDS**

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

## **AUDIT CONCLUSIONS**

Based upon the testwork performed and the audit findings noted below, we conclude that:

1. The inventory is acquired utilizing the City's procurement policies/procedures.
2. All inventory adjustments made are not properly documented and authorized.
3. All inventory items appear to be adequately secured and safeguarded.
4. A perpetual inventory system is in place. However, there are weaknesses present in the system that require improvements to the internal control surrounding the inventory system.

## **PERPETUAL INVENTORY SYSTEM**

Section 2-5 of the City Code states, "Each department and agency of the city shall, under the supervision of the city finance officer, keep a perpetual inventory of the city property under its control, and shall furnish such reports in relation thereto as the city finance officer may require." As a part of the field work for this audit, we performed test counts of the inventory located at the Moccasin Bend Wastewater Treatment Plant. Due to the large population of inventory items, we selected fifty-two (52) items to test count as a part of our inventory observation. We found only twenty-seven (27) items (51.92%) agreed to the total listed on the inventory report provided by Public Works management. Based on our test count observation, approximately 48% of the inventory items were not accounted for correctly.

## **RECOMMENDATION 1**

We recommend the Public Works Department/Moccasin Bend Wastewater Treatment Plant implement procedures to help prevent inventory discrepancies from occurring and to correct any discrepancies prior to fiscal year end. We recommend management implement improvements to inventory tracking from the point of requisition to removal from the warehouse. We also recommend management (at a level above warehouse staff) conduct monthly test counts of a few random inventory items. Discrepancies should be investigated to determine systematic problems.

## **AUDITEE RESPONSE**

The warehouse staffs three employees. During 2009, we lost all three of these key employees at the same time. New employees were hired a while after that, with one of them leaving several months after being hired. Also, during this time, the inventory system that we were utilizing experienced problems and because of the age of the system, we did not have the technical support that we needed. We were no longer able to scan items or download items into the system. We did manually try to enter data into spreadsheets that were downloaded into the “temporary fix” for an inventory system (Cityworks) which we began using in Sept 2009. In Oct 2009, the Cityworks “inventory” was downloaded into Oracle. There have been problems with the interface between Oracle and Cityworks with Oracle taking more out of inventory than what had really been scanned to a work order. We became aware of the problem in Sept 2010. We have worked with IS to get this problem corrected. There was also a problem with the Oracle item maintenance files that did not interface with Cityworks to add new items to the system. This also caused problems with the checking out of parts. The Inventory Coordinator will now have the responsibility of doing spot checks periodically of the items that are in the warehouse and comparing them to the inventory that is in Oracle to help ensure that the system is functioning properly. Cycle counting will also be implemented.

## **INCOMPLETE WORK ORDERS**

We examined forty-two (42) completed work orders related to forty-nine (49) inventory requisitions that were filled during the period under review. Of these forty-two (42) work orders, we found that twelve (12) were missing staff signatures, five (5) were missing supervisor signatures, and seven (7) were missing both supervisor and staff signatures to document the work was completed. Based on our review, 28.57% of the work orders examined were incomplete due to missing signatures.

## **RECOMMENDATION 2**

We recommend PW-ISS Management ensure all completed work order documents include signatures of both the supervisor and employee(s) responsible for performing and completing the work (prior to the work order being closed).

## **AUDITEE RESPONSE**

The Cityworks system was put in place in September 2009, but was not yet tied into the Oracle system. During the time of implementation of Cityworks, we were also doing training on using the system, developing and changing the work order printout, establishing procedures, etc... this system is ultimately still a work in progress as we have still found issues that we are working to resolve. We have established policies and procedures that have been put in place to ensure that work orders are signed by the appropriate individuals when he/she completes the work order.

We have changed our process that now requires that the supervisor be the responsible party for closing the work order when it is complete. They are not necessarily required to sign the work order because the computer logs their name and the date the work order was closed. The person doing the work is still required to sign the work order certifying that the work is complete. We are also working on ways to attach any pertinent information to the work orders by scanning documents and attaching to the work order in the computer system. This too is a work in progress.

### **DOCUMENTATION OF INVENTORY DISBURSEMENTS**

We learned a computerized bar code scanning system is utilized by the PW-ISS staff as a part of the process of removing inventory items from the inventory warehouse. We also learned the scanner only records the date and quantity removed to the City Works system. There is no record or documentation retained by PW-ISS to document the specific staff member who receives and physically removes an inventory item from the warehouse.

### **RECOMMENDATION 3**

We recommend that PW-ISS Management immediately implement a process/procedure that provides an adequate audit trail to document the specific employee who receives an inventory item each time that an item is removed from the warehouse. We recommend inventory receipts be issued and retained to document all inventory disbursements.

### **AUDITEE RESPONSE**

We have developed a log sheet with the date, work order number, item number, and quantity being taken out from the warehouse. The employee is required to sign this sign out sheet. We will continue to explore other options that will help to make this more efficient.

### **INVENTORY SHRINKAGE**

We found an inventory adjustment of (\$75,845.96) was made as a result of the June 30, 2010 (end of FY10) inventory count. The amount written off is approximately 15% of the total inventory amount listed on the City's Oracle system. Management has made no investigation into the apparent missing inventory.

### **RECOMMENDATION 4**

We recommend PW-ISS Management implement improvements to the inventory handling process. Suggested improvements would include tagging all items upon receipt, scanning of all items leaving the inventory enclosure to an authorized work order, and segregation of all obsolete items with removal to surplus immediately after being scanned out of the regular inventory account. Ultimately, any manual adjustments should be approved by the Director of Waste Resources after a diligent investigation.

## **AUDITEE RESPONSE**

With the loss of three employees, an antiquated computer inventory program, and the transition to new inventory and financial computer programs, we did our best through spreadsheets of keeping track of what was going in and out of the warehouse during the time frames of the transitions, but with training new employees on the warehouse process, a new computer system, etc... there could have been some mistakes made. We also have tried diligently to catch any “interface” problems with the inventory and financial systems and have worked with IS to try to correct problems as they are found.

## **INVENTORY NOT TAGGED/RECORDED**

We found a substantial amount of inventory at Moccasin Bend that was not labeled with PW-ISS inventory tags or part numbers. It appears these unlabeled items were not included in the inventory listing maintained by PW-ISS Management. When in stock items are not included in the inventory system/database, management may mistakenly order needed parts because they are not aware of what is in stock. Further, management will not be alerted when items are removed without authorization.

## **RECOMMENDATION 5**

We recommend PW-ISS place inventory tags on and properly account for all inventory stored at the Moccasin Bend inventory warehouse.

## **AUDITEE RESPONSE**

The not tagged inventory we considered as “non-stock” items because they are items that we do not order on a regular basis or may never order again. A lot of non-stock items were items that were received in as part of capital projects (i.e. upgrading of oxygen system; rebuilding of centrifuges, etc...) that were “spare parts” and were purchased by the contractor not the City as part of the rehabilitation contract. There is no price associated because it is part of the “bid package” with them and not items that we are going to be reordering. Some non-stock items are special order items that were ordered as a result of a work order. When these items are picked up from the warehouse, they are listed on the work order with the quantity and price. When the work order is completed, this is keyed into the system and charged to the work order. After talking with Finance and Auditing personnel, we have decided to set all of the special order items up as “inventory” items. We will be entering all existing special order items into the computer and any new items that need to be ordered. A decision has not been made yet as to how to handle existing capital project spare parts. This will not be a project that can be done overnight, but we will work diligently to get it done as soon as possible.

## **AUDITOR COMMENT**

The Director of Internal Audit (Stan Sewell) and external auditor (Erin Parsons) performed test counts at the Moccasin Bend warehouse on July 1, 2010. They noted substantial numbers of inventory items that were not tagged. Bill Gibson (Inventory Technician) explained that items without a tag were not included in inventory. Sample items were selected by Mr. Sewell and Mr. Gibson confirmed these included current stocking items.

## **OBSOLETE INVENTORY**

As a part of our review, we found that PW-ISS does not retain written documentation when inventory items are transferred to the obsolete inventory account (Account # 151202). We also found that PW-ISS Management does not sign-off/authorize transfers of regular inventory items to the obsolete inventory account. Further, PW-ISS does not transfer obsolete inventory to the Purchasing Department (see City Code section 2-542(2)).

## **RECOMMENDATION 6**

We recommend PW-ISS Management immediately implement a policy/procedure that requires the Director of Waste Resources to approve all transfers from regular inventory to obsolete inventory (in writing) to provide adequate supporting documentation related to inventory obsolescence. We also recommend inventory be transferred to the Purchasing Department as soon as it is declared obsolete.

## **AUDITEE RESPONSE**

Inventory personnel will not decide the items that are to be deemed obsolete from the warehouse. The responsibility for deciding if items are obsolete will be that of the Chief Mechanics, Electricians, or the Operations Supervisors. A form will be filled out listing the obsolete equipment with signature of the individual making the request. The Inventory Control Coordinator will sign off on the items to be transferred to the obsolete account and the Inventory Technician will do the transaction in Oracle. A note will be made in Oracle why the equipment is being changed to obsolete status. Items will be put on pallets, when applicable, and marked obsolete. Purchasing will be notified that the equipment needs to be picked up.