

**OFFICE OF THE CITY CONTROLLER**



**PUBLIC WORKS AND ENGINEERING DEPARTMENT  
INVENTORY MANAGEMENT AUDIT  
WAREHOUSE NO. 003**

**Sylvia R. Garcia, City Controller**

**Judy Gray Johnson, Chief Deputy City Controller**

**Steve Schoonover, City Auditor**



OFFICE OF THE CITY CONTROLLER  
CITY OF HOUSTON  
TEXAS

Sylvia R. Garcia

November 13, 2000

The Honorable Lee P. Brown, Mayor  
City of Houston, Texas

SUBJECT: Public Works and Engineering Department  
Inventory Management Audit - Warehouse No. 003 (Report No. 00-27)

Dear Mayor Brown:

The City Controller's Office Audit Division has completed an unannounced Inventory Management Audit of the Public Works and Engineering Department's Warehouse No. 003 located at 2200 Patterson Street. The audit objective of this financial related audit was to assist management with the assessment of the adequacy of internal controls related to physical inventory management at the warehouse location. Additionally the audit evaluated compliance with departmental standard operating procedures.

Based on the results of our audit, the auditors concluded that internal controls over physical inventory at the warehouse are not adequate to provide Department management with reasonable assurance that physical inventories are properly safeguarded and managed. Draft copies of the matters contained in the report were provided to Department officials. The findings and recommendations are presented in the body of the report and the views of responsible officials as to actions being taken are appended to the report as Exhibit 1.

We commend the Department for taking prompt action on recommendations noted in the report. Also, we appreciate the cooperation extended to our auditors by Department personnel during the course of the audit.

Respectfully submitted,

Sylvia R. Garcia  
City Controller

xc: City Council Members  
Albert Haines, Chief Administrative Officer  
Cheryl Dotson, Chief of Staff, Mayor's Office  
Thomas Rolen, Director, Public Works and Engineering Department  
Sara Culbreth, Acting Director, Finance and Administration Department

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## EXECUTIVE SUMMARY

- The unannounced inventory count revealed significant differences between the perpetual records and the physical inventory counts. The error rate was approximately 82%. The sample tested reflected 2% of the total inventory items at the warehouse located at 2200 Patterson.
- Inventory adjustments made at the conclusion of the departmental physical inventory during the February 25, 2000 count were not reviewed and approved by all responsible officials in accordance with departmental standard operating procedures.
- Fifty-four percent of the items counted by the audit team did not agree to the warehouse counters count.
- Security at the warehouse located at 2200 Patterson was not adequate. Access to the warehouse and its back yard, where heavy and expensive inventory items are stored, was not monitored and controlled.
- The department did not have policies and procedures for handling Materials with Zero Usage. Currently, such items consume a significant amount of space and other resources allocated to inventory management at the warehouse.
- Adequate records are not maintained at the warehouse location documenting inventory items and quantities that have been issued from the warehouse.

## SCOPE AND PURPOSE

Our scope consisted of conducting an unannounced inventory count on February 25, 2000 and reviewing inventory management procedures at the Public Works and Engineering Department (PW&E) Warehouse No. 003. Our objective was to evaluate the adequacy of internal controls related to receiving, inventory, usage, safeguarding, and controlling assets.

Departmental management is responsible for establishing and maintaining a system of internal controls to adequately safeguard the physical inventory as an integral part of the Department's overall internal control structure. The objectives of a system are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and are recorded properly.

Because of inherent limitations in any system of internal accounting control, errors or irregularities may occur and not be detected in a timely fashion. Also, projection of any evaluation of the system to future periods is subject to the risk that procedures may become inadequate because of changes in conditions, or that the degree of compliance with procedures may change.

## CONCLUSION

Based on the results of our audit, we concluded that internal controls over physical inventory at the warehouse located at 2200 Patterson Street are not adequate to provide management with reasonable assurance that physical inventories are properly safeguarded and managed in compliance with departmental standard operating procedures.

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George Wakgira  
Auditor-in-charge

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Rudy Garcia  
Audit Manager

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Steve Schoonover  
City Auditor

## INTRODUCTION

The departmental standard operating procedures provide the guidelines for the inventory management process. They provide procedures for warehouse preparation, location survey, identification and counting of inventory, recording of data, and inventory adjustments and approvals for both automated and non-automated warehouses. The warehouse at 2200 Patterson is an automated warehouse and its approximate inventory value, at the time of the audit, was \$2.5 million.

## AUDIT FINDINGS AND RECOMMENDATIONS

### I. UNANNOUNCED INVENTORY COUNTS

#### BACKGROUND

Departmental procedures indicate that a copy of the material request marked "HAND ISSUE DURING INVENTORY" be put in the bin from which the material was pulled.

The departmental standard operating procedures state: "Each warehouse will be provided with a variance report detailing all adjustments made to inventoried quantities. All material adjustments will be investigated and documented as needed, with an explanation as to the reason for the variance and the steps taken to prevent a recurrence. All documents should be filed at each warehouse for review by Warehousing & Distribution and/or Auditors. Warehouse supervisors will complete the 'Advanced Inventory and Purchasing Control System (ADPICS) Inventory Adjustment' and/or 'Inventory Adjustment Reports' (differences greater than 5%) letters and forward through respective Superintendents Warehouse Operations, to Inventory Management, located at 319 St. Emmanuel for further processing."

#### FINDING

Our testing revealed significant differences between the perpetual records and the physical inventory counts as follows.

- The "Quantity On Hand" per the Inventory Status Report and per the auditors' count did not agree for 82% (49 of 60) of the sample items reviewed. The sample tested reflected 2% of the total inventory items at the warehouse located at 2200 Patterson.
- Hand issues forms documenting differences for bins whose inventory count did not agree with the Inventory Status Report were not available.

**RECOMMENDATION**

To minimize differences between actual inventory quantities and the perpetual records, we recommend that management routinely perform inventory cycle counts. A cycle count concentrates efforts on the inventory with the highest issue activity value and the highest risk of error. The following is the recommended inventory frequency:

Inventory items should be placed in four categories “A”, “B”, “C” or “D”. The first step is to rank every item in inventory, from the stock unit with the highest issue activity value for the previous 12-month period, to the stock unit with the lowest issue activity value. The total value of all issues for the period should be broken down as follows: “A” items, the top 80%, “B” items, the next 15% and “C” items, the remaining 5%. Finally, “D” items, those that would have no issue activity for the period. The inventory cycle count frequency should be scheduled so that “A” items are inventoried more times annually than “B” or “C” items, and “D” items are sample counted (or counted 100%) once annually. Quarterly inventories, with dollar activity ranking reports re-generated before each inventory, should be scheduled as follows:

Quarter	“A” Items	“B” Items	“C” Items	“D” Items
First	√	√		
Second	√	√		
Third	√		√	
Fourth				√ *

\* “D” items should be 100% inventoried during the first year of implementation of this cycle count method to establish an accurate beginning inventory. However, sample counting those items should be considered in subsequent years, since “D” items are made up of stocks for which no issue activities were recorded.

Additionally, hand issue forms for items pulled from bins during the inventory count should be placed in the appropriate bins.

**II. INVENTORY ADJUSTMENTS**

**FINDING**

Inventory adjustments made at the conclusion of the departmental physical inventory count as of February 25, 2000 were not reviewed and approved by all responsible officials in accordance with departmental standard operating procedures. Eighty-two percent (49 of 60) of the sample items we reviewed required adjustments. The City’s inventory system (Advantage 2000) automatically adjusts the Inventory Status Report balance to the final physical count. As a result, \$37,886 was written off as adjustments at the conclusion of the Department’s physical

inventory. This represented a net amount from an inventory overage of \$299,958 and shortage of \$337,844.

Misappropriation of inventory assets may not be detected and prevented in a timely fashion in the absence of managerial oversight over the inventory adjustment process.

#### **RECOMMENDATION**

We recommend that Department management review and approve inventory adjustments to the perpetual inventory records to ensure that the justifications for the adjustments appear valid and reasonable.

### **III. WAREHOUSE LOCATION SURVEY**

#### **FINDING**

A warehouse location survey was not conducted prior to the Department's physical inventory. During our inventory test count, we noted the following conditions:

- Fifty-four percent (32 of 60) of the items counted by the audit team did not agree to the warehouse counters count.
- The Commodity Number shown on the Inventory Status Report and on the bin label did not agree for 9% (5 of 60) of the sample items.
- The Part Description shown on the Inventory Status Report and on the bin label did not agree for 10% (6 of 60) of the sample items.
- The Units of Measure (UM) shown on the Inventory Status Report and on the bin label did not agree for 10% (6 of 60) of the sample items that we reviewed.
- The Bin location shown on the Inventory Status Report and on the bin label did not agree for 15% (9 of 60) of the items reviewed.
- An inventory label was not affixed to the bin location for 7% (4 of 60) of the items tested.

Conducting a warehouse survey to ensure that all inventory labels reflect correct commodity numbers, part descriptions, units of measure, bin and row numbers may result in a more accurate physical inventory count.

#### **RECOMMENDATION**

We recommend that Department management require that a warehouse location survey be conducted prior to taking a physical inventory.

Additionally, management needs to ensure that warehouse counters receive proper supervision while conducting inventory counts.

#### **IV. WAREHOUSE SECURITY**

##### **BACKGROUND**

Inventory is highly susceptible to theft and pilferage and thereby necessitates strong security measures. This includes controlling access to inventory, especially high dollar and easily disposable items. Management is responsible for implementing inventory control procedures to secure the facility and to safeguard inventory assets.

##### **FINDING**

Security at the warehouse located at 2200 Patterson was not adequate. Access to the warehouse and its back yard where heavy and expensive inventory items were stored was not monitored and controlled. During the preliminary tour of the warehouse, we noted that the back yard was accessible to unauthorized persons. The storeroom supervisor did not have control over access to the back yard of the warehouse, where extremely heavy inventory items such as traffic poles and concrete meter covers are stored. We also noted some individuals, with a heavy truck, unloading and loading items from the back yard. The storeroom supervisor did not know who these individuals were. They appeared to be contractors working on other City construction projects. Other conditions noted were as follows:

- Security cameras installed inside the warehouse were not functional.
- Various Traffic and Transportation Division staff members with offices located inside the warehouse have access to the inventory areas via the second floor of the warehouse.
- The back gate leading to the restrooms/lockers was not always locked. While touring the warehouse, we noted the gate was left open.

Inventory assets may be misappropriated or stolen without adequately controlling and monitoring access to the warehouse facilities.

##### **RECOMMENDATION**

We recommend that all doors inside the warehouse be kept locked at all times. Access to the warehouse and its back yard should be monitored to ensure that all inventory areas are accessed by authorized personnel only.

## **V. ZERO USAGE INVENTORY ITEMS**

### **BACKGROUND**

Disposing of obsolete materials or items with zero usage is a sound inventory management and control procedure that results in proper inventory valuation. This also results in efficient utilization of warehouse space and reduces inventory carrying cost. Adequate inventory controls require policies and procedures to address this issue.

Department management is currently in the process of developing policies and procedures for handling obsolete items and/or materials with zero usage.

### **FINDING**

The department did not have policies and procedures for handling Materials With Zero Usage. Consequently, such items consume a significant amount of space and resources allocated to inventory management at the warehouse. We traced 27% of our sample items to the Commodities With Zero Usage report. These items had not been issued or used for, at least, a period of one year at the time of this audit.

Materials With Zero Usage will continue to deplete departmental resources in terms of additional storage space and personnel that are required in storing and maintaining these items in the absence of policies and procedures for handling, including disposing them.

### **RECOMMENDATION**

We recommend the Department develop policies and procedures for handling and disposing of materials with zero usage. Management may also consider searching for best practices among other City departments, such as the Fire Department warehouse at 1205 Dart, that have successfully implemented such policies and procedures.

## **VI. WAREHOUSE ISSUES REQUEST**

### **BACKGROUND**

Warehouse Issues Request forms are prepared and submitted to the 2200 Patterson warehouse by authorized personnel within the Department.

When a Warehouse Issues Request is received, the form is time stamped and reviewed to ensure it contains the correct organization number, fund number, object code, commodity code and description. The requestor's name is reviewed and compared to the Authorization List to ensure that individual is authorized to receive the items and that he is not exceeding his authorize request limit. The reviewer also checks

Advantage 2000 for the availability of adequate funds and inquires the inventory system to verify that adequate quantity is available in stock. The reviewer will sign and date the form acknowledging responsibility. Finally, the approved document is forwarded to Inventory Management, located at 319 St. Emmanuel, for further processing.

**FINDING**

Warehouse Issues Requests, for items issued from inventory, are not maintained at the warehouse. Resolving differences between perpetual and physical inventory records is difficult without retaining issuing documents.

**RECOMMENDATION**

We recommend that Department management establish a procedure requiring the storeroom supervisor to retain copies of all issuing documents from the warehouse. A periodic review should also be made to ensure that all issuing documents are posted to the inventory system.

# EXHIBIT 1



**CITY OF HOUSTON**

Public Works and Engineering  
Department

**Interoffice**

Correspondence

To: Sylvia R. Garcia  
City Controller

From: Director  
Public Works and Engineering

Date: October 11, 2000

Subject: **INVENTORY MANAGEMENT AUDIT REPORT,  
WAREHOUSE 003, SEPTEMBER 15, 2000**

We have completed our response to your Inventory Management Audit of Warehouse 003 for the Materials Management Branch of the Resource Management Division. The attached report is provided in response to the subject audit report. If you have any further questions, please call Carl Lowery at 837-0321.

Thomas J. Rolen, P.E.

attachment

xc: Carl Lowery  
Gloria Minnick  
Steve Schoonover

*Views of Responsible  
Officials*

# EXHIBIT 1

## **PUBLIC WORKS AND ENGINEERING DEPARTMENT INVENTORY MANAGEMENT AUDIT, WAREHOUSE 003 FINDINGS, RECOMMENDATIONS AND DEPARTMENTAL RESPONSES**

### **I. UNANNOUNCED INVENTORY COUNTS**

#### **FINDING:**

The unannounced inventory count revealed significant differences between the perpetual records and the physical inventory counts. The error rate was approximately 82%. The sample tested reflected 2% of the total inventory items at the warehouse located at 2200 Patterson.

#### **RECOMMENDATION:**

To minimize differences between actual inventory quantities and the perpetual records, we recommend that management routinely perform inventory cycle counts. A cycle count concentrates efforts on the inventory with the highest issue activity value and the highest risk of error.

Additionally, hand issue forms for items pulled from bins during the inventory count should be placed in the appropriate bins.

#### **RESPONSE:**

Materials Management Branch (MMB) was very concerned that 82% of the sample items counted (60 commodities) did not agree with the perpetual records. The entire variance report for the warehouse (2,667 commodities) was analyzed and it was determined that 774 (29916) of the counts of all items did not agree with the perpetual records. The results of the July 2000 inventory showed improvement., 24% of the counts of all items (629 of 2675 commodities) did not agree with the perpetual records.

Since the value of supplies varies from pennies to thousands of dollars, a more meaningful measure is the dollar value of the variances. The absolute dollar value of all discrepancies for the Patterson warehouse was 19.9 % during the July 2000 inventory as compared to the remainder of all other Public Works and Engineering Department warehouses, which averaged only 5.5 %.

MMB is working with the Department of Finance and Administration (F&A) to implement a continuous, cycle inventory count program. An interim procedure will be tested during the month of October 2000 in one warehouse, prior to finalizing the written procedures and implementing it in all warehouses. The procedure will be completed by November 30, 2000.

Views of Responsible  
Officials

# EXHIBIT 1

During all formal inventory counts, hand issue forms for items pulled from stock are placed in the appropriate bins. Since MMB management did not consider the February survey to be a formal inventory physical count, the practice was not employed.

## II. INVENTORY ADJUSTMENTS

### FINDING:

Inventory adjustments made at the conclusion of the departmental physical inventory During the February 25, 2000 count were not reviewed and approved by all responsible officials in accordance with departmental standard operating procedures.

### RECOMMENDATION:

We recommend that Department management review and approve inventory adjustments to the perpetual inventory records to ensure that the justifications for the adjustments appear valid and reasonable.

### RESPONSE:

Disagree. Inventory adjustments resulting from the survey were reviewed and approved in accordance with department standard operating procedures subject to the satisfactory completion of necessary research and justification. MMB is currently in the process of revising those procedures to conform to the new Advantage 2000 computerized inventory management system. These revisions will refine procedures for inventory adjustments. Included will be criteria for determining which inventory variances require written justifications. Additionally, it will specify the levels of management required to review and approve those justifications based on the value of the adjustment. In all cases, the Warehouse Manager must approve all adjustments and dependent on the value may require Deputy Assistant Director or Senior Assistant Director approval. Senior MMB management will monitor compliance with these procedures. The procedure will be completed by November 15, 2000.

**Views of Responsible  
officials**

## III. WAREHOUSE LOCATION SURVEY

### FINDING:

A warehouse location survey was not conducted prior to the Department's physical inventory. Conducting a warehouse survey to ensure that all inventory labels reflect correct commodity numbers, part descriptions, units of measures, bin and row numbers may result in a more accurate physical inventory count.

# EXHIBIT I

## RECOMMENDATION:

We recommend that Department management require that a warehouse location survey be conducted prior to taking a physical inventory. Additionally, management needs to ensure that warehouse counters receive proper supervision while conducting inventory counts.

## RESPONSE:

Agree. A thorough warehouse location survey was completed during the subsequent inventory in July 2000. It has and will continue to be MMB's practice to conduct location surveys prior to formal inventories; however, since MMB management never considered the February survey to be a formal inventory the practice was not employed.

## IV. WAREHOUSE SECURITY

### FINDING:

Security at the warehouse located at 2200 Patterson was not adequate. Access to the warehouse and its back yard, where heavy and expensive inventory items are stored, was not monitored and controlled.

### RECOMMENDATION:

We recommend that all doors inside the warehouse be kept locked at all times. Access to the warehouse and its back yard should be monitored to ensure that all inventory areas are accessed by authorized personnel only.

### RESPONSE:

Agree. All doors leading directly into the warehouse will be locked at all times; therefore, access to the warehouse will be controlled by MMB. Security of exterior storage areas is the responsibility of the Traffic and Transportation Branch (T&T). T&T personnel are in the process of ordering materials for repair of the inside surveillance cameras and installation of the exterior cameras with a target completion date of November 15, 2000. T&T Branch has provided MMB with a list of authorized T&T escort personnel for the pole yard. T&T authorized Branch personnel will escort non-city employees in these areas.

## V. ZERO USAGE INVENTORY ITEMS

### FINDING:

The department did not have policies and procedures for handling Materials with Zero Usage. Currently, such items consume a significant amount of space and other resources allocated to inventory management at the warehouse.

Views of Responsible  
Officials

# EXHIBIT I

## RECOMMENDATION:

We recommend the Department develop policies and procedures for handling and disposing of materials with zero usage. Management may also consider searching for best practices among other city departments, such as the Fire Department warehouse at 1205 Dart that has successfully implemented such policies and procedures.

## RESPONSE:

Disagree. The department has always applied City policy to its practices pertaining to disposition of zero usage (obsolete/surplus) items. MMB is developing formal procedures for identification of slow moving items and their removal from the operating inventory. The first phase will focus on screening items and analyzing usage; the next phase will deal with orderly removal and accounting for the material in the Surplus & Salvage Warehouse (033) at Upper Braes. MMB will then store these assets pending further disposal instructions from T&T. The procedures will be completed by November 15, 2000.

MMB has surveyed other departments' practices and had previously implemented many of the same techniques employed by these agencies, e.g., auctioning via Internet, notifying other agencies of availability, etc.

## VI. WAREHOUSE ISSUING DOCUMENTS

### FINDING:

Adequate records are not maintained at the warehouse location documenting inventory items and quantities that have been issued from the warehouse.

### RECOMMENDATION:

We recommend that Department management establish a procedure requiring the storeroom supervisor to retain copies of all issuing documents from the warehouse. A periodic review should also be made to ensure that all issuing documents are posted to the inventory system.

### RESPONSE:

Agree. MMB will maintain a copy of transaction documents at the Patterson facility. The official accountability copies of all documents will remain at 319 St. Emanuel Street. This file will also continue to be used to research inventory discrepancies.

Views of Responsible  
Officials