

OFFICE OF THE CITY CONTROLLER



**FIRE DEPARTMENT
UNANNOUNCED INVENTORY AUDIT**

Judy Gray Johnson, City Controller

Steve Schoonover, City Auditor



OFFICE OF THE CITY CONTROLLER
CITY OF HOUSTON
TEXAS

JUDY GRAY JOHNSON, CPA

October 3, 2003

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

SUBJECT: Fire Department - Unannounced Inventory Audit
(Report No. 03-10)

Dear Mayor Brown:

The City Controller's Office Audit Division has completed an Unannounced Inventory Audit of the Fire Department's warehouses located at 1205 Dart Street as of June 2, 2003. The audit objective was to assist management with the assessment of the adequacy of internal controls related to Bunker Gear, Quartermaster, Air Pack, Emergency Medical Services, and Fire Supply inventory management at the above location. Additionally, the financial related audit evaluated compliance with departmental standard operating procedures.

The report, attached for your review, concluded that internal controls over physical inventory at the warehouses are adequate to provide Department management with reasonable assurance that physical inventories are properly safeguarded and managed, except for the findings noted in this report. Draft copies of the matters contained in the report were provided to appropriate 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 I.

We commend the Department for their extensive research of ongoing issues discussed during the audit and for taking immediate action on the recommendations identified in the report. Also, we appreciate the cooperation extended to our auditors by Department personnel during the course of the audit.

Respectfully submitted,

Judy Gray Johnson
City Controller

xc: City Council Members
Sara Culbreth, Acting Chief Administrative Officer
Stephen O. Tinnermon, Chief of Staff, Mayor's Office
Chris Connealy, Chief, Fire Department
Philip B. Scheps, Ph.D., Director, Finance and Administration Department

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SCOPE AND PURPOSE

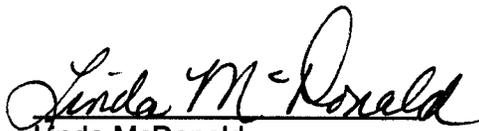
Our scope consisted of conducting an unannounced inventory count and reviewing inventory management procedures at the Fire Department's warehouse as of June 2, 2003. The warehouse is divided into five sections; Bunker Gear, Quartermaster, Air Pack, Emergency Medical Services, and Fire Supplies. Our objective was to assist management with the assessment of the adequacy of internal controls related to issuing, recording, safeguarding, and valuing assets. Additionally, the audit evaluated the Department's compliance with its own standard operating procedures.

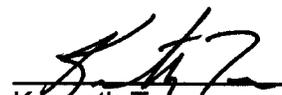
Departmental management is responsible for establishing and maintaining a system of internal controls to adequately safeguard the physical inventory as an integral part of the Department's overall internal control structure. The objectives of a system are to provide management with reasonable, but not 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.

Due to the inherent limitations in any system of internal accounting controls, 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 the five Fire Department's inventory warehouses are adequate to provide Department management with reasonable assurance that physical inventories are properly safeguarded. Additionally, the controls related to issuing, recording, and valuing assets are adequate, except for the findings noted in this report.


Linda McDonald
Auditor-in-charge


Kenneth Teer
Audit Manager


Steve Schoonover
City Auditor

INTRODUCTION

On June 2, 2003, Controller's Office auditors conducted an unannounced inventory audit of the Fire Department's warehouse located at 1205 Dart Street. The warehouse is divided into five sections; Bunker Gear, Quartermaster, Air Pack, Emergency Medical Services, and Fire Supplies. The inventory on the date of the audit was approximately \$3 million. The turnover analysis in the following tables was based on reports dated June 30, 2003.

AUDIT FINDINGS AND RECOMMENDATIONS

I. SLOW TURNOVER OF INVENTORY ITEMS

BACKGROUND

The following tables reflect inventory usage at four of the five warehouses. Bunker Gear was not included in this analysis because of conditions noted in Finding II.

Inventory Usage Analysis Tables

QUARTERMASTER – WAREHOUSE 006 AS OF JUNE 30, 2003

| | NO. OF COMMODITIES | 12-MONTH USAGE IN \$ | VALUE ON-HAND 6-30-2003 | ON- HAND % | INVENTORY TURNOVER | SUPPLY ON-HAND IN YRS |
|----------------------------------|-----------------------|----------------------------|-------------------------------|----------------|-----------------------|-----------------------------|
| | 106 | 0.00 | 20,734 | 7.47% | 0 | Infinite |
| | 28 | 2,209 | 36,920 | 13.31% | 0.06 | 10 Yrs & Up |
| | 132 | 58,061 | 129,253 | 46.60% | 0.45 | 1 To 9.99 Yrs |
| Subtotal/ Calculation | 266 | 60,270 | 186,907 | 67.38% | .32 | 3.10 Yrs |
| | 33 | 60,393 | 38,736 | 13.96% | 1.56 | .50 To .99 Yrs |
| | 51 | 228,494 | 49,681 | 17.91% | 4.60 | .01 To .49 Yrs |
| | 88 | 92,259 | 2,065 | .74% | 44.68 | 0 Yrs |
| Subtotal/ Calculation | 172 | 381,146 | 90,482 | 32.62% | 4.21 | .24 Yrs |
| Total/ Calculation | 438 | \$441,416 | \$277,389 | 100.00% | 1.59 | .63 Yrs |

AIR PACK – WAREHOUSE 028

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AS OF JUNE 30, 2003

| | NO. OF COMMODITIES | 12-MONTH USAGE IN \$ | VALUE ON-HAND 6-30-2003 | ON-HAND % | INVENTORY TURNOVER | SUPPLY ON-HAND IN YRS |
|------------------------------|--------------------|----------------------|-------------------------|----------------|--------------------|-----------------------|
| | 74 | 0.00 | 65,473 | 21.75% | 0 | Infinite |
| | 19 | 476 | 21,976 | 7.30% | 0.02 | 10 Yrs & Up |
| | 31 | 106,650 | 172,030 | 57.16% | 0.62 | 1 To 9.99 Yrs |
| Subtotal/ Calculation | 124 | 107,126 | 259,479 | 86.21% | .41 | 2.42 Yrs |
| | 17 | 75,339 | 38,123 | 12.67% | 1.98 | .01 To .99 Yrs |
| | 76 | 71,793 | 3,371 | 1.12% | 21.30 | 0 Yrs |
| Subtotal/ Calculation | 93 | 147,132 | 41,494 | 13.79% | 3.55 | .28 Yrs |
| Total/ Calculation | 217 | \$254,258 | \$300,973 | 100.00% | .84 | 1.18 Yrs |

EMERGENCY MEDICAL SERVICE – WAREHOUSE 029
AS OF JUNE 30, 2003

| | NO. OF COMMODITIES | 12-MONTH USAGE IN \$ | VALUE ON-HAND 6-30-2003 | ON-HAND % | INVENTORY TURNOVER | SUPPLY ON-HAND IN YRS |
|------------------------------|--------------------|----------------------|-------------------------|----------------|--------------------|-----------------------|
| | 32 | 0.00 | 12,544 | 2.29% | 0 | Infinite |
| | 22 | 1,061 | 25,967 | 4.73% | 0.04 | 10 Yrs & Up |
| | 61 | 42,751 | 97,665 | 17.80% | 0.44 | 1 To 9.99 Yrs |
| Subtotal/ Calculation | 115 | 43,812 | 136,176 | 24.81% | .32 | 3.11 Yrs |
| | 35 | 123,988 | 78,277 | 14.26% | 1.58 | .50 To .99 Yrs |
| | 120 | 1,218,440 | 252,370 | 45.98% | 4.83 | .01 To .49 Yrs |
| | 750 | 64,661 | 82,005 | 14.94% | .79 | 0 Yrs |
| Subtotal/ Calculation | 905 | 1,407,089 | 412,652 | 75.19% | 3.41 | .29 Yrs |
| Total/ Calculation | 1,020 | \$1,450,901 | \$548,828 | 100.00% | 2.64 | .38 Yrs |

FIRE SUPPLY – WAREHOUSE 030
AS OF JUNE 30, 2003

| | NO. OF COMMODITIES | 12-MONTH USAGE IN \$ | VALUE ON-HAND 6-30-2003 | ON-HAND % | INVENTORY TURNOVER | SUPPLY ON-HAND IN YRS |
|------------------------------|--------------------|----------------------|-------------------------|----------------|--------------------|-----------------------|
| | 188 | 0.00 | 239,671 | 30.42% | 0 | Infinite |
| | 55 | 6,952 | 126,695 | 16.08% | 0.05 | 10 Yrs & Up |
| | 155 | 86,233 | 235,271 | 29.86% | 0.37 | 1 To 9.99 Yrs |
| Subtotal/ Calculation | 398 | 93,185 | 601,637 | 76.36% | .15 | 6.46 Yrs |
| | 51 | 58,088 | 42,863 | 5.44% | 1.36 | .50 To .99 Yrs |
| | 134 | 538,725 | 137,083 | 17.40% | 3.93 | .01 To .49 Yrs |
| | 131 | 159,552 | 6,282 | .80% | 25.40 | 0 Yrs |
| Subtotal/ Calculation | 316 | 756,365 | 186,228 | 23.64% | 4.06 | .25 Yr |
| Total/ Calculation | 714 | \$849,550 | \$787,865 | 100.00% | 1.08 | .93 Yrs |

Sources for Turnover Schedules: Weekly Warehouse Inventory Status by Part Number Report (ICS102) dated June 30, 2003. We also used the ABC Inventory Control by Warehouse Report (ICS661) for the

FIRE DEPARTMENT
UNANNOUNCED INVENTORY AUDIT

Quantity Issued Amount. The two reports did not always match regarding stock item numbers. It was explained to the auditors by Fire Warehouse Personnel that the stock item will appear on the ICS102 report only if it was assigned a current bin location number. It would not be assigned a location number if it were item(s) ordered and immediately used or sent out to Fire personnel. Therefore, these stock item(s) were included as 0 Years in the Supply On-Hand in Years category in the above schedules.

**WAREHOUSE SUMMARY
AS OF JUNE 30, 2003**

| | NO. OF COMMODITIES | 12-MONTH USAGE IN \$ | VALUE ON-HAND 6-30-2003 | ON- HAND % | INVENTORY TURNOVER | SUPPLY ON-HAND IN YRS |
|----------------------------------|-------------------------------|-------------------------------------|--|-----------------------|-------------------------------|--------------------------------------|
| | 400 | 0.00 | 338,422 | 17.67% | 0 | Infinite |
| | 124 | 10,698 | 211,558 | 11.05% | 0.05 | 10 Yrs & Up |
| | 379 | 293,695 | 634,219 | 33.12% | 0.46 | 1 To 9.99 Yrs |
| Subtotal/ Calculation | 903 | 304,393 | 1,184,199 | 61.84% | .26 | 3.89 Yrs |
| | 119 | 242,469 | 159,876 | 8.35% | 1.52 | .50 To .99 Yrs |
| | 322 | 2,060,998 | 477,257 | 24.92% | 4.32 | .01 To .49 Yrs |
| | 1,045 | 388,265 | 93,723 | 4.90% | 4.14 | 0 Yrs |
| Subtotal/ Calculation | 1,486 | 2,691,732 | 730,856 | 38.16% | 3.68 | .27 Yr |
| Total/ Calculation | 2,389 | \$2,996,125 | \$1,915,055 | 100.00% | 1.56 | .64 Yrs |

* SCHEDULE CONTAINS ROUNDED PERCENTAGES.

FINDING

Our analysis of the inventory at four of the five sections (Emergency Medical Services, Quartermaster, Fire Supply, and Air Pack) revealed that \$1,184,199 of the \$1,915,055 (62%) total inventory on hand, will be in inventory an average of 3.89 years. The remainder, \$730,856 (38%) will be in inventory an average of less than 4 months.

The cost of acquiring, warehousing, and managing excessive quantities of inventory is an unnecessary commitment of City resources and exposes the inventory to obsolescence and misappropriation.

Upon advising management of the apparent excessive quantities of inventory, they researched the cause. In some instances there were plausible reasons for the excessive quantities. For example, Warehouse 29, EMS has \$25,967 of commodities with a supply greater than 10 years. Management asserted that 37% of the total is for items held to be used at major disasters, and that drugs held to treat victims of weapons of mass destruction comprise 27% of the infinite supply. Also, Warehouse 6, Quartermaster, has \$36,920 in commodities with a shelf life greater than 10 years. Management stated that of that amount, \$15,394 is for long-sleeve polo shirts that were received in the spring of 2002 and could be issued all at once when cold weather returns.

RECOMMENDATION

The Fire Department has a Standard Operating Procedure (SOP) No. WH-007 which establishes guidelines for use by Warehouse personnel in handling and disposing of excess and obsolete items that are no longer usable by the Fire Department. Although we commend management on their research that explained some of the slow moving inventory items, we recommend that management dispose of excess and obsolete items and revise SOP No. WH-007 to include a schedule for a periodic review to remove obsolete items from stock.

II. TIMELY AND ACCURATE RECORDING OF BUNKER GEAR COATS AND PANTS

FINDING

The City records inventory transactions, by commodity, in the Advantage 2000 System. Fire Department Management informed us that the actual quantities on-hand of Bunker Gear coats and pants would differ, by commodity, from the quantities on-hand reflected in the Advantage 2000 System. Their explanation of the cause of the discrepancy is as follows:

Coats and pants are reusable and may be issued and returned several times over their useful life. The commodity code used to record coats and pants in inventory is determined by their size and color. When the coats and pants are issued, they are removed from the inventory system. When coats and pants are returned, they are first sent out for cleaning and repair. After cleaning, the cleaner remeasures them and writes the measurements on the packaging. The cleaner returns the items to the warehouse, and warehouse personnel enter them into the inventory according to the cleaners' measurements.

When firefighters are being fitted, warehouse personnel may discover that the measurement of the coat or pant is incorrect. They then determine the correct size, relabel the item, and return it to the shelf. However, the Advantage 2000 Inventory System is not updated, and as a result, does not reflect the correct sizes by commodity code.

The audit team was unable to document, by commodity code, the coats and pants. However, by counting the coats and pants in total, as if one commodity code, it was determined that overall, the inventory was intact and accounted for.

RECOMMENDATION

We recommend management enter sizing discrepancies, when identified, into the Advantage 2000 System. This will allow the Advantage 2000 System to accurately reflect the actual stocked inventory.

EXHIBIT I



CITY OF HOUSTON Fire Department

Lee P. Brown

Mayor

Chris Connealy
Fire Chief
Houston Fire Department
1205 Dart Street
Houston, Texas 77007

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September 17, 2003

Judy Gray Johnson
City Controller
611 Walker
Houston, Texas 77002

Subject: Unannounced Inventory Audit Management Response

Dear Ms. Johnson:

Please find below our response to the final report of subject audit.

Finding I Slow Turnover of Inventory Items

HFD Response:

We agree with this finding with reservations for items, such as medical supplies, that are required for emergencies or major disasters. Because of the nature of the department's role, some items especially medical supplies must be kept in inventory even though there is no usage during the prior twelve months. Examples are items that are held for use in case of major disasters, and drugs held to treat victims of weapons of mass destruction. Because of these items, we will continue to experience slower inventory turnover rate than we would have under normal conditions. The stocking levels of medical items (safety, minimum and maximum levels) are also higher than other items in inventory due to a number of factors, but primarily due to availability:

- 1) Not all items are on contract and require sourcing and three or more bids.
- 2) Lead time for delivery has not been consistent due to availability of medical supplies. The department competes with hospitals, clinics and other EMS agencies around the country.
- 3) When emergency strikes, availability becomes a serious problem. Therefore, to ensure continued support of EMS operations it becomes more critical to have adequate supplies.

*Views of Responsible
Officials*

EXHIBIT I

The department will identify and dispose excess and obsolete items in the warehouses. The department will also revise SOP No. WH-007 to include scheduled periodic reviews of inventory items to ensure excess and obsolete items are disposed periodically.

Finding II Timely and Accurate Recording of Bunker Gear Coats and Pants

HFD Response:

We agree with this finding. However, we find the current method of recording inventory for coats and pants by size in the Advantage system cumbersome, time consuming, and not cost effective. We suggest replacing the currently used Advantage commodity codes (based on sizes and colors), with commodity codes based on garment types (i.e. pants, coats, hand gloves). The size and color information will be maintained in the recently installed APT system. The Advantage system will continue to keep the accurate inventory values on a daily basis as it does now, but will not have the level of detail that currently exists. This suggestion is based on the following:

- The Texas Commission of Fire Protection requires that we track information on each element of bunker gear by serial number. One of the garment manufacturers has developed a database for tracking this information, called the APT system, and has provided it to the City of Houston free of charge. Since we are required to maintain assignments and other information by serial number, this system can also provide the sizing information on our inventory items without any additional data entry.
- The Advantage system uses a 13-digit commodity code system which is prone to data entry errors generally resulting from handling large amount of data information. The APT system utilizes either the manufacturer's serial number, or the City of Houston serial numbers, both of which are shorter than the Advantage commodity code and are bar coded. Therefore, it will be easier to maintain the correct data in the APT system.
- The Advantage system will continually be updated with receipts and issues of garments by type, while the APT system will be updated with receipts and issues by serial number, which includes sizing, color, and type information. During the semi-annual inventory process, the inventory in the APT system will be reconciled with the inventory in the Advantage system.

*Views of Responsible
Officials*

EXHIBIT I

- The current method of tracking the inventory by size is not providing the warehouse with any usable information. This is collaborated by the audit finding stating, "The audit team was unable to document, by commodity code, the coats and pants. However, by counting the coats and pants in total, as if one commodity code, it was determined that overall, the inventory was intact and accounted for. " When certain information is needed such as data for reordering stock, the Information from the APT system can be used.
- The results of the audit provide reasonable assurance that controls over inventory are adequate and properly safeguarded. These controls will be maintained.

The above does not cover the inventory management of boots since we agree with the recommendation that boots should be tracked in the system on the basis of size.

We hope we were able to clarify the concerns presented during the audit. Please call Gracia Rosslow at 713-247-8721 if you need more information.

Sincerely,



Hector Trevino
Acting Fire Chief

**Views of Responsible
Officials**

cc: Gracia Rosslow- Deputy Director-HFD 
Perfecto Fajardo- Deputy Assistant Director
Flora Libunao- Administrative Manager, Internal Audit
David Swan- Administrative Manager, Warehouse