

**Performance Audit 17-02:  
Fire Department Tangible  
Inventory**

**April 2017**

**City Auditor**

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# OFFICE OF INTERNAL AUDIT

## Stan Sewell, City Auditor

April 27, 2017

To: Mayor Andy Berke  
City Council Members

Subject: Fire Department Tangible Inventory (Report #17-02)

Dear Mayor Berke and City Council Members:

The attached report contains the results of our audit of the Fire Department Tangible Inventory. Our audit found that the inventory is clean, uncluttered and well organized. However, we found a lack of written policy and procedures, internal control weaknesses and a need for training on the operation of the inventory software.

In order to address the noted areas for improvement, we recommended actions to develop written policies and procedures that include tightened internal controls and the implementation of training on the inventory software system.

We thank the management and staff of the Fire and Finance Departments for their cooperation and assistance during this audit.

Sincerely,

Stan Sewell, CPA, CGFM, CFE  
City Auditor

Attachment

cc: Audit Committee Members  
Stacy Richardson, Chief of Staff  
Chris Adams, Fire Chief  
Carlos Tibbs, Logistics and Technology Chief, CFD  
Maura Sullivan, Chief Operating Officer  
Daisy Madison, Chief Financial Office

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## AUDIT PURPOSE

This audit was conducted in accordance with the Office of Internal Audit's 2017 Audit Agenda. The objective of this audit was to determine if:

- Fire Supply has effective controls to ensure tangible inventory is managed properly.

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## BACKGROUND

The Fire Logistics Division is a unit of the Chattanooga Fire Department (CFD). The Fire Logistics Division consists of two sections and is vital to the overall operation of the Fire Department.

The Supply section provides all necessary supplies, equipment and fuel. The Maintenance section performs maintenance on department buildings and equipment, as well as planning new construction and remodeling. Fire Logistics is located in a secured building separate from other fire units. It consists of ten employees: The Fire Logistics Chief, five maintenance employees, three Fire Equipment Specialists and an Inventory Clerk.

The Fire Logistics Division purchases equipment and supplies used to support the CFD's mission of "protecting life, property and community resources through prevention, preparation, response and mitigation." An inventory of these goods is stored at the Fire Supply building. The inventory amount varies from approximately \$630,000 to \$700,000.

Fire Supply is responsible for stocking and delivering to the fire stations all items needed for operations, from paper products used at the station to supplies used fighting fires. A truck is kept loaded with firefighting supplies to be taken to large fires to ensure the firemen have needed items.

The responsibility for ordering, receiving, stocking and dispersal of inventory is segregated between employees. The process appears to be efficient and organized.

A full physical inventory is taken annually with occasional unscheduled spot checks having been implemented during fiscal year-ending 2017.

The inventory area is clean, uncluttered and well organized. Inventory is located in a warehouse, with medical, fire and general supplies segregated. All like items were found to be grouped together.



Surplus inventory is segregated from the remainder of operations. Some inventory deemed obsolete for firefighting purposes can, and is, used in training as a cost saving measure. If no useful purpose remains a surplus form is completed, and after signature of the Chief, the goods are sold by the Purchasing Department.



**Financial Information**

City of Chattanooga  
 Fire Department Inventory  
 Fiscal 2012-Fiscal  
 2016

	2012	2013	2014	2015	2016
Fiscal Y/E Balance	\$631,487	\$730,093	\$692,022	\$670,052	\$637,887
Purchases of Inventory	345,317	221,447	129,213	316,212	101,462

Source: City Financial  
 Records

**FINDINGS AND RECOMMENDATIONS**

**Comprehensive policies and procedures are needed for tangible inventory.**

Fire Supply has functional controls in place to safeguard inventory. These controls are a good framework, but several areas could be strengthened. All policies are verbal. Written policies and procedures are not in place for steps to be taken to purchase, receive and disburse inventory items to supply the fire stations. Written policies and procedures help protect against process deficiencies and maintain efficiencies as staff turnover occurs. Also, written policies and procedures eliminate any confusion as to what is to be done and how a function is to be performed.

Component 1, Control Environment of the *Internal Control and Compliance Manual for Governmental Entities and Other Audited Entities in Tennessee* requires the development of a manual that provides sufficient documentation of internal control to communicate to personnel their responsibilities, as well as to monitor and evaluate the controls. Policies, procedures, and internal control design and activities should be written, easily accessible by employees and regularly updated to address the changing risks and procedures.

**Recommendation 1:**

We recommend Fire Department management develop written policies and procedures for all functions under Fire Supply. The policies should be distributed to personnel with receipt documented by their signature (written or digital).

**Auditee Response:** *We concur with the audit finding and recommendation.*

**Internal Controls  
around inventory  
need to be  
strengthened.**

Internal control encompasses systematic measures (such as reviews, checks and balances, methods and procedures) instituted by an organization to:

1. Conduct its business in an orderly and efficient manner;
2. Safeguard its assets and resources;
3. Deter and detect errors, fraud, and theft;
4. Ensure accuracy and completeness of its accounting data;
5. Produce reliable and timely financial and management information, and
6. Ensure adherence to its policies and plans. <sup>1</sup>

A basic internal control structure exists for Fire Supply inventory. However, several weaknesses were discovered regarding the internal controls surrounding the operation of the inventory system that collectively, could enhance risk.

**Controls over inventory adjustments need to be strengthened.**

Adjustments to the quantity of an item in most inventory systems are commonly made using an adjustment module. This allows any adjustments to be segregated for reporting, showing the part, adjustment amount and describing the reason. These reports allow management to spot trends, oddities or fraudulent activities more easily.

The inventory system used by Fire Supply has an adjustment module, but it has not been used in the past. Adjusting entries have been entered into the system using the entry screen for purchases or disbursements of inventory, not as adjustments.

The adjustment entries are not presented to the Chief for approval prior to being entered into the system. Component 3, Control Activities, of the *Internal Control and Compliance Manual for Governmental Entities and Other Audited Entities in Tennessee*, requires segregation of duties, (e.g., identification of variances and approval of them) for purpose of deterring fraudulent activities.

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<sup>1</sup> Businessdictionary.com

The effect of not segregating adjustments to the inventory system, or receiving prior approval, negates the effectiveness of a tool meant to bring exceptions to the forefront, spot trends and discourage fraudulent activities.

### **Recommendation 2:**

We recommend all inventory adjustments be approved by the Fire Logistics Chief prior to entry and posted to the inventory system using the adjustment module. We further recommend adjustment reports be run periodically by management with inspection and investigation of questionable entries.

**Auditee Response:** *We concur with the audit finding and recommendation.*

### **Fire Supply Inventory activities do not comply with record retention policies.**

Fire Supply inventory operates on a mostly paperless basis. The majority of correspondence is performed by email. However, email correspondence regarding dispersals was not available. Fire Supply deletes emails that request and confirm disbursement of supplies after the transaction is completed.

Google email automatically erases deleted email after 30 days. The previously used Outlook email system didn't permanently delete records unless prompted to do so, making it possible to search deleted records. Fire Supply personnel were not aware of this difference in the systems. The lack of documentation supporting transactions from start to finish results in a lack of a perpetual inventory system.

*The Internal Control and Compliance Manual for Governmental Entities and Other Audited Entities in Tennessee, Component 3* Section 1 requires management maintain a perpetual inventory, as well as usage records by employee. To successfully accomplish these tasks records confirming amounts entered in the electronic system must be accessible. In addition, *Tennessee Code Annotated 9-18-102(a)* requires each municipal government to establish and maintain internal controls which provide reasonable assurance that assets are safeguarded against waste, loss, unauthorized use or misappropriation.

Resolution 28466 passed by the City Council December 1, 2015 codified “adopting an informational, records management policy, and revised retention schedule for the City of Chattanooga.” The policy prohibits the disposal of records prior to RIM Team approval (unless it is a document type specifically exempted).

### **Recommendation 3:**

We recommend email records documenting transactions be maintained in a separate folder for safekeeping for a minimum of seven years and until disposition is approved by the RIM team. We further recommend all paper records involved in an inventory transaction be scanned to a folder and retained for the same time period. (This process was started during the course of the audit).

***Auditee Response:** We have implemented this recommendation. Fire Logistics staff were not aware of the City policy that required retention of our inventory records.*

### **All deliveries to fire stations should be confirmed by fire station personnel.**

Inventory items delivered to a fire station when station personnel are present are counted by fire station personnel and a packing slip signed, indicating the proper items and count were received. When personnel are on a call at the time of delivery, the supplies are left and the receipt notates where items were placed (e.g. “left in kitchen”) with no confirmation of the count or acceptance noted. The person who ordered the items is sent an email detailing the delivery. The fire station responds only if they do not agree with what was ordered. A delivery transaction is not complete until delivery is confirmed by the recipient.

### **Recommendation 4:**

We recommend the email sent to the fire stations indicating delivery of items require a positive return response from fire station personnel that the supplies have been received as requested. If no response is received, we recommend follow-up inquiries be made.

***Auditee Response:** We concur with the audit finding and recommendation.*

### **Inventory Spot check records are not retained.**

Beginning in fiscal year 2017, on occasion the Chief chooses an inventory type to spot check. The Inventory Technician is requested to provide a listing of the part numbers and descriptions in the series. The list includes part number, amount on hand and location per the system. The listing is provided to the Fire Equipment Specialists, who count the inventory and indicate the number counted on the list. The Inventory Technician compares the system and physical count. Part numbers with amounts that do not match are recounted and researched. If the difference is not found, an adjustment is made to the inventory system to modify the balance to the physical count.

The documentation of the spot checks is discarded after the process is complete. Appropriate documentation should be retained from the source of an entry that affects financial records. Also, lack of backup makes it easier to obscure fraudulent transactions.

A simple change in procedure by leaving off the current count on the sheet for spot counts will strengthen this process. Listing the expected number of units of an item on hand could influence the results of a count.

#### **Recommendation 5:**

We recommend documentation of the spot checks be scanned and retained. We further recommend the listing used by the Fire Equipment Specialists for spot checks not contain the number expected to be on hand.

***Auditee Response:** We concur with the audit finding and recommendation.*

### **Training is needed on inventory system operation.**

There has been no formal training on operating the inventory system. The Logistics Chief went through the manual and shared the basics of the inventory system operations with the Inventory Clerk.

The Inventory Clerk didn't know adjustment entries could be entered in the system. As a result, adjustments cannot be separated in reporting for examination. Currently only one report from the system is used, which shows inventory by item and warehouse location. When asked if there was a report that showed additions for a period, etc. employees indicated they did not know how to limit a request to a specific period.

Reporting for additions in a period, trends in usage, ability to see frequent adjustments to an item number, as well as other analytical reporting are lost due to lack of knowledge regarding system usage. Value added and utilization of the system is impaired by lack of knowledge about system capabilities and functionality.

**Recommendation 6:**

We recommend the Fire Logistics Chief and Inventory Technician receive training on the inventory system.

***Auditee Response:** We concur with the audit finding and recommendation.*

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## APPENDIX A: SCOPE, METHODOLOGY AND STANDARDS

Based on the work performed during the preliminary survey and the assessment of risk, this audit covers Fire Department Tangible Inventory from July 2015 to December 2016. When appropriate, the scope was expanded to meet the audit objectives. Source documentation was obtained from Fire Supply and the Finance Departments. Original records as well as copies were used as evidence and verified through physical examination.

To evaluate the efficiency of the Fire Department Tangible Inventory, we interviewed management and personnel in the inventory section, reviewed records from the inventory system to ensure proper entry of receipts and disbursements and examined a statistical sample of inventory.

The sample size and selection were statistically generated using a desired confidence level of 90 percent, expected error rate of 5 percent, and a desired precision of 5 percent. Statistical sampling was used in order to infer the conclusions of test work performed on a sample to the population from which it was drawn and to obtain estimates of sampling error involved. When appropriate, judgmental sampling was used to improve the overall efficiency of the audit.

To achieve the audit's objectives, reliance was placed on computer-processed data contained in the WASP Inventory System and City financial system. We assessed the reliability of the data contained in the two systems and conducted sufficient tests of the data. Based on these assessments and tests, we concluded the data was sufficiently reliable to be used in meeting the audit's objectives.

We conducted this performance audit from *February 6, 2017 to April 11, 2017* 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.

### **City of Chattanooga Fraud, Waste, and Abuse Hotline**

Internal Audit's Fraud, Waste, and Abuse Hotline gives employees and citizens an avenue to report misconduct, waste or misuse of resources in any City facility or department.

Internal Audit contracts with a hotline vendor, The Network, to provide and maintain the reporting system. The third party system allows for anonymous reports. All reports are taken seriously and responded to in a timely manner. Reports to the hotline serve the public interest and assist the Office of Internal Audit in meeting high standards of public accountability.

To make a report, call 1-877-338-4452 or visit our website:

[www.chattanooga.gov/internal-audit](http://www.chattanooga.gov/internal-audit)