

Date: April 24, 2018

To: Patrick A. Duhaney, Acting City Manager

From: Lauren Sundararajan, CFE, Internal Audit Manager *L S*

Copies to: Internal Audit Committee
Roy E. Winston, Fire Chief

Subject: **Cincinnati Fire Department - Central Stores Audit**

Attached is the Cincinnati Fire Department - Central Stores audit report. The primary objective of this performance audit was to determine if effective and efficient controls were in place over the procurement, security and distribution of supplies and equipment. This audit was conducted in accordance with Internal Audit's current work plan.

We would like to thank the management and staff of the Cincinnati Fire Department for their assistance and cooperation during this audit.

If you need any further information, please contact me.

Attachment

Cincinnati Fire Department Central Stores Audit

April 2018



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Executive Summary

Internal Audit (IA) performed an audit of the Cincinnati Fire Department (CFD) Central Stores (CS) operation. The audit objective was to determine if effective and efficient controls were in place over the procurement, security and distribution of supplies and equipment.

Best practices in inventory management advises that exact and dependable information is fundamental to a proficient and productive working environment. To make planning, working, and budgetary decisions, management needs to know how much inventory is on hand and where it is located.

The audit revealed several opportunities for improvement in the CS inventory control structure. For example, the CS is currently utilizing a Microsoft Access database which was designed internally twenty years ago. The database is not operating at an optimal level, and IA was informed that the manual input of data has contributed to inaccurate inventory information. Additionally, based on the systems current configuration, and the lack of reporting functionality, CS management is unable to produce various data reports that could assist them in measuring and evaluating performance.

Annual physical inventory counts are a necessary process of an inventory operation, and are designed to uncover errors and irregularities that may occur. IA found that the process CS uses is not in accordance with best practices, and is insufficient and unreliable.

Comprehensive policies and procedures serve as a valuable management tool by assisting leadership with direction and guidance to staff. CS lacks policies and procedures regarding many critical processes, such as written procedures governing the internal procurement process, and the disposal of unneeded supplies or equipment.

Based on industry standards, Personal Protective Equipment (PPE) is to be cleaned and inspected at least twice in a twelve-month period. CS personnel acknowledged they have not been able to reach this goal, which places the health and safety of the fire fighter in jeopardy, as well as exposing the City to potential liability.

To improve the internal control structure over the CS inventory operation, IA recommends updating the inventory database, providing CS staff with proper training and guidance, conducting physical inventory counts per best practices, updating policies and procedures, and determining the necessary steps to ensure PPE's are cleaned per industry standards.

I. Introduction

Background

The Cincinnati Fire Department was established in 1853 and is the nation's oldest paid professional fire department.¹ CFD employs 839 sworn firefighters and 44 civilian staff members. CFD provides fire suppression, first responder emergency medical services, advanced life support (ALS) transport, arson investigations, fire prevention, hazardous devices, and hazardous material incident responses to its residents, which covers seventy-seven square miles of the City.²

The CFD is split into four districts and operates 26 fire stations that are strategically situated throughout the City. This consists of 26 engine companies, two truck (ladder) companies, two heavy rescue units, and twelve medic units. Within the four districts there are nine divisions, one of which is the Administration Division. Central Stores is organized within the Administration Division under the command of an Assistant Fire Chief. CS is also staffed with one Senior Accountant/Procurement Manager and five civilian employees.

CS is primarily responsible for the purchase, storage, delivery, and repair of supplies for the CFD. They also serve as the liaison for other City services such as fleet management, equipment disposition, laundry service, and IT purchasing. As the central purchasing agent for the CFD, CS oversees all supply orders for apparatus, equipment, station maintenance, and emergency medical services.

CFD's annual budget is approximately \$8.8 million for non-personnel expenses; a majority of which flows through the CS.³ At the end of fiscal year 2017, CS reported an inventory value of approximately \$395,605.

¹ City of Cincinnati Fire Department website: www.cincinnati-oh.gov/fire/

² City of Cincinnati Fire Department website: www.cincinnati-oh.gov/fire/

³ According to an email dated March 6, 2018, from the CFD Chief Financial Officer

Audit Selection

IA conducted this audit in accordance with the current work plan.

Audit Objective

Determine if effective and efficient controls are in place over the procurement, security and distribution of supplies and equipment.

Audit Scope and Methodology

This audit reviewed current practices and performance of CFD's CS inventory management system during FY 2016 through FY 2017. To achieve the audit objective, IA interviewed appropriate staff, examined the inventory tracking system records, reviewed CFD policies and procedures, sought verification of actions through documentation, and researched practices of other cities.

Statement of Auditing Standards

As required by the Cincinnati Administrative Code Article II §15, this audit was conducted in accordance with the Generally Accepted Government Auditing Standards (GAGAS), except for standard 3.96 pertaining to external peer review requirements. This exception did not have a material effect on the audit.

IA continues to conduct internal quality reviews to assure the conformance with applicable GAGAS. IA performed the fieldwork between December 2017 and February 2018.

Commendations

Internal Audit commends the staff of the Cincinnati Fire Department for their cooperation throughout the audit.

II. Audit Findings and Recommendations

The inventory database is limited in its effectiveness.

Maintaining accurate and complete data is necessary to have an effective and efficient operation. IA found several shortcomings with the CS database. These issues are explained in the subsections below:

Inventory Management

Best practices in inventory management advises that exact and dependable information is fundamental to a proficient and productive working environment. To make planning, working, and budgetary decisions, management needs to know how much inventory is on hand and where it is located. Inventory responsibility requires that detailed records of delivered or procured goods be maintained, and accurately reported. Itemized records are an essential component of safeguarding inventory assets.

IA found that the CS is currently utilizing a Microsoft Access database which was designed internally twenty years ago. IA was informed that the database is not operating at an optimal level, and manual input of data has contributed to inaccurate inventory information. Emails obtained by IA disclosed an Information Technology (IT) employee expressing concerns not just with the functionality of the software, but also with the ability of users to appropriately use the application. To determine the accuracy of inventory, IA randomly selected 42 (4%) out of 1,045 items available in the CS. IA could account for 19 (45%) of the items; however, 23 (55%) contained discrepancies.

Recommendation 1: To improve inventory operations, CFD should invest in a new inventory database to increase efficiency and accuracy.

Department Response: Agree. Fire has actively pursued this goal since the audit of 2013. We were advised the city would be supplying a city-wide system. The Department RMU and IT staff will research possible inventory systems so as to reflect dependable and accurate information to make planning and budgeting decisions.

Recommendation 2: Due to the susceptibility of human error, CFD management should ensure employees receive proper training to complete their assigned tasks with proficiency and consistency.

Department Response: Agree. However, current staffing level at the store makes this unattainable at this time. We are currently operating with a vacant position in an already understaffed work program. Some vital services such as PPE cleaning are behind schedule and we are struggling to keep up with demand.

Physical Inventory Counts

According to the General Accounting Office (GAO), "Physical counts of inventory are only one aspect of inventory controls that contribute to accurate and reliable inventory records." Annual physical inventory counts are a necessary process of an inventory operation, and are designed to uncover errors and irregularities that may occur. CS management stated that they are required to perform physical counts annually. Although this is occurring on an annual basis, IA

discovered that the process used in conducting the physical counts is not in accordance with best practices, and is insufficient and unreliable due to the data errors discussed above.

The GAO also states, “Research and reconciliation of the difference between the physical count and the record is an essential element of an effective physical count process. Research, when properly conducted, provides support for adjustment to the inventory records, identifies the causes of variances between the physical count and the inventory records, and provides management with information with which to implement corrective actions.” IA found that the reconciliation process is not completed and variances uncovered during the physical counts are not properly investigated or documented, as should be done.

Additionally, CFD is required to annually submit an inventory list to the Finance Department for inclusion in the Comprehensive Annual Financial Report (CAFR). The Finance Department relies on this list to provide accurate data. However, the reports generated are not reliable for calculating accurate costs. Imprecise reporting of City assets could pose serious financial consequences.

Recommendation 3: CFD should continue to perform annual physical inventory counts; however, the *United States General Accounting Office’s Executive Guide: Best Practices in Achieving Consistent, Accurate, Physical Counts of Inventory and Related Property* should be used as an informational resource to ensure the accuracy of inventory counts.

Department Response: Agree. The annual inventory will continue to be a physical count of the entire store. It will be conducted more frequently when staffing allows. The *United States General Accounting Office’s Executive Guide: Best Practices in Achieving Consistent, Accurate, Physical Counts of Inventory and Related Property* have been received and provided to stores management as an informational resource.

Recommendation 4: CFD should investigate and document physical inventory variances.

Department Response: Agree. This currently is completed as time permits, however, reduced staffing levels at central stores limits our ability to thoroughly investigate every occurrence.

Recommendation 5: CFD should ensure that accurate physical inventory data is reported to the Finance Department.

Department Response: Agree. The inventory reported to the Finance Department is derived by conducting a physical count of all stock items. This count is conducted on the last Friday of the fiscal year when central stores closes to allow the staff to perform the count.

Inventory Reporting

Based on the systems current configuration, and the lack of reporting functionality in the database, CS management is unable to produce various data reports that could assist management in measuring and evaluating performance.

For example, low inventory reports efficiently show which supplies need to be ordered in the near future. IA found that CS management is unable to rely on low inventory reports due to the inaccuracy of the data the system produces. Consequently, CS employees rely on a visual inspection of the inventory to determine when best to re-order. This process is not only inefficient, but is also susceptible to human error.

Exception reports are another tool for management to use in overseeing an inventory operation. They are computer generated reports that can show adjustments made to quantity levels in the inventory database, and are essential for evaluating the appropriateness of the changes and discovering the concealment of theft. IA found that CS management does not run exception reports.

Recommendation 6: Once the database is fully functional, CFD management should use data reports to measure and evaluate performance on a routine basis.

Department Response: Agree. This will occur once an inventory system is received.

Security Controls

A system audit trail that allows management to independently review transactions made by employees with unique user credentials is critical to improving the security of the inventory system and holding employees accountable. Through interviews, IA found that four CS employees have access to the database using a shared username and password. IA inquired with IT why this was occurring and was informed that the department is so small, that it is easy to keep track of who is doing what. Without these controls in place, an audit trail cannot determine which employee made changes in the system.

Recommendation 7: Work with IT to assign unique usernames to individuals authorized to use the inventory database system.

Department Response: Agree. Fire IT staff will investigate the ability to create individual usernames for all authorized staff.

Central Stores lacks segregation of duties.

According to the GAO, "Segregation of duties, a commonly used and widely accepted internal control and business practice, entails dividing or segregating key duties and responsibilities among different people. Implemented effectively, this type of control reduces risk of error and fraud so that no single individual can adversely affect the accuracy and integrity of the count."

IA found there are two employees who are responsible for ordering, receiving, entering inventory items into the database, and stocking shelves. One is responsible for medical supplies whereas the other is responsible for ordering miscellaneous supplies. Together, both individuals maintain control over the entire procurement process without any segregation of duties between their respective responsibilities. When proper segregation of duties is not in place, the risk of error, fraud, theft or loss increases.

Recommendation 8: Ensure that the individuals who are responsible for the physical custody of assets, processing and recording of transactions, and approval of transactions do not overlap.

Department Response: Agree. At the present time, because of staff shortages in both Stores and Finance, some responsibilities overlap. Once our staffing situation improves, we will work toward eliminating all of the overlapping responsibilities.

There are no documented procedures governing the internal procurement process.

Documented procedures are essential to every organization. They provide the expectations for each employee and allow management to hold individuals accountable. Storekeepers are responsible for ordering supplies in a timely manner and go through a very thorough process. This process consists of determining if supplies are low, obtaining price quotes from the vendor(s) when necessary, and placing the order once funds have been approved for the purchase. IA found that the internal procurement process used by the Storekeepers is not documented. When there are no documented procedures, the potential for human error exists and limits management's ability to hold employees accountable.

Recommendation 9: Document the internal procurement process for CS staff. This includes detailed steps needed to determine when supplies are low, the requirement of price quotes for products, and the completion of required forms/signatures needed.

Department Response: Agree. RMU along with Stores Senior Accountant will create a flow chart for store team members to follow in the performance of their duties.

There are no policies concerning the proper disposal of unneeded supplies and equipment.

Inventories throughout the fire stations should be monitored for reasonable levels. IA found that CS does not have a policy concerning the proper disposal of unneeded supplies and equipment, and staff members are disposing of items based upon their judgment. Some unneeded items are thrown into the dumpster, others are recycled at a City public services dump site, and some scrap metal items are donated to the Fire Museum.

Failure to adequately create clear policies and procedures for disposal that streamlines/outlines processes, communicate and enforce those policies, places the City at risk for theft of unneeded supplies and equipment that could otherwise be returned to CS or sold at auction. In addition, hoarding supplies reduces storage space, increases purchasing expenses, and makes budgets more difficult to manage.

Recommendation 10: CFD should document and implement a policy outlining a process for remitting unneeded supplies and equipment back to CS.

Department Response: Agree. The Administration Section will develop and distribute a policy to address the remitting of unneeded supplies and equipment back to Central Stores.

CFD sworn personnel, regardless of rank, are capable of ordering supplies or equipment from Central Stores.

CFD Central Stores procedure 1201.05 (E) states that "requisitions for supplies are to be made by the company commander on a F-27 and forwarded through channels." To obtain supplies or equipment, fire stations use the requisition function of the inventory database via the City's intranet to complete "Form 27 Requisition for Supplies (F-27)." Through staff interviews, IA found that this does not consistently occur, and often it is the firefighters who submit supply requisitions. Although some fire stations may delegate this task to a few members, this does not limit the responsibility of the company commanders. Holding the commanders responsible and

limiting the number of personnel allowed to submit requisitions reduces the exposure for abuse or unnecessary purchases.

Recommendation 11: Enforce the current procedure 1201.05(E) requiring company commanders to submit supply requisitions. This should encompass all intranet supply requisitions, all irregular and special requisitions, and walk-in requisitions.

Department Response: Agree. We will work to enforce the existing procedure and reduce irregular and walk-in requisitions except in emergency situations.

CFD "Form 27 Requisition for Supplies (F-27)" needs to be updated to reflect current practices

IA found that "Form 27 Requisition for Supplies" needs updating to reflect current practices. For example, the policy states District 1 and District 2 fire stations are to order supplies during the odd numbered months and District 3 and District 4 fire stations are to order during the even numbered months. IA found fire stations order supplies when they are low, which is typically every month. When policies and procedures are not consistent or adhered to, it creates an atmosphere of uncertainty for the employees and increases the risk for errors and confusion.

Recommendation 12: Update "Form 27 Requisition for Supplies" to reflect current practices.

Department Response: Agree. RMU will address this.

CFD does not consistently track firefighter's Personal Protective Equipment (PPE) that has been cleaned and inspected.

Per CFD's PPE policy §402.03(3), "It is the Company Officer's responsibility to ensure that all members under his command have properly assembled their clothes for cleaning and inspection." IA found company officers are not tracking the PPE cleaning schedules of their members. Instead, they rely on CS to track the information based upon the serial numbers assigned to the clothing.

IA reviewed the internal records maintained by CS and found CS has not consistently kept track of the firefighters' PPE inspection and cleaning over a 12-month period. Additionally, the information was not organized based upon the serial number assigned to the clothing but rather based upon the firefighter's name and the company/unit assigned. Failure to have a formal way of tracking this process could pose health risks to the firefighters and a potential legal liability for the City.

Recommendation 13: Enforce the current policy by requiring company officers to adequately track its members PPE.

Department Response: Agree. Company commanders do not "track" members PPE. The tracking of PPE is a function of Central Stores (see recommendation 14). Company Commanders are responsible to ensure that all personnel assigned to the company are forwarding their PPE for cleaning.

Recommendation 14: Utilize the tracking system made available through the PPE manufacturer. This would allow for a fully functional database backed system that makes it easy to keep track of compliance with department and industry standards.

Department Response: Agree. This recommendation is completed. We are currently using the tracking system provided by Honeywell.

The employee responsible for cleaning PPE is unable to meet CFD's policy based upon industry standards.

According to the National Fire Protective Association (NFPA), it is well understood that firefighters are exposed to contaminants. Those contaminants soil firefighter PPE, and the soiled PPE can cross contaminate everything it contacts. Consequently, PPE is cleaned more frequently. To protect the health of firefighters and preserve the integrity of gear, the NFPA has set industry standards to ensure PPE is properly cleaned and maintained.⁴

Every firefighter is assigned two sets of PPE. Per CFD's PPE policy §402.03 states "Each set of fire protective clothing shall be cleaned and inspected at least twice in a twelve-month period." CS personnel acknowledged they have not been able to reach this goal due to updated industry standards, and only one employee assigned to clean firefighter's PPE. The inability to meet the PPE cleaning standard places the health and safety of the firefighter in jeopardy, as well as exposing the City to potential liability.

Recommendation 15: Conduct a cost benefit analysis to determine the most feasible method to ensure all PPE's are cleaned per industry standards.

Department Response: Agree. RMU will produce cost benefit analysis to comply with NFPA1851 Turnout Maintenance standard.

Central Stores does not prohibit the entrance of outsiders into the storage area.

CS has a sign that reads "firefighters are not permitted behind this counter without prior approval." IA found this is not enforced. Maintaining control over inventory is essential to protecting its assets. IA staff observed a firefighter enter the CS area to socialize with CS employees. The culture at CS is very casual where CS employees feel comfortable allowing firefighters and sometimes outside contractors to walk behind the counter/door unescorted. Unfortunately, this puts the City at risk for possible theft of inventory due to unescorted visitors.

Recommendation 16: Enforce the current policy that all visitors have the proper authorization to enter CS, and ensure that they are escorted by a Storekeeper to minimize theft. Additionally, institute an entry log for all visitors accessing the storage area.

Department Response: Agree. Stores will enforce the existing policy as well as track all entry and exit from Central Stores secure areas.

⁴ <http://www.nfpa.org/1851>

III. Conclusion

CFD's annual budget is \$8.8 million for non-personnel expenses, a majority of which flows through the CS. The audit revealed several opportunities for improvement over the internal controls surrounding the CS inventory. For example, the inventory database is not operating at an optimal level, data in the system is unreliable, management is unable to produce reports that can assist them in measuring and evaluating performance, physical inventory counts are not conducted properly, policies and procedures need updating, and PPE's are not cleaned per industry standards.

IA recommends updating the inventory database, providing CS staff with proper training and guidance, conducting physical inventory counts per best practices, updating policies and procedures, and determining the necessary steps to ensure PPE's are cleaned per industry standards. By addressing these issues, CFD will improve their ability to effectively manage the CS inventory.

IV. Cincinnati Fire Department Response

Recommendation 1: To improve inventory operations, CFD should invest in a new inventory database to increase efficiency and accuracy.

Department Response: Agree. Fire has actively pursued this goal since the audit of 2013. We were advised the city would be supplying a city-wide system. The Department RMU and IT staff will research possible inventory systems so as to reflect dependable and accurate information to make planning and budgeting decisions.

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Department Response: Agree. However, current staffing level at the store makes this unattainable at this time. We are currently operating with a vacant position in an already understaffed work program. Some vital services such as PPE cleaning are behind schedule and we are struggling to keep up with demand.

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