Fire Department Inventory Management Audit

With over $3 million spent annually on inventory, the Fire Department needs stronger inventory management practices and controls

LONG BEACH CITY AUDITOR

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December 2017

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The Fire Department (LBFD) relies heavily on its inventory of supplies and equipment to respond to emergencies and fulfill everyday duties. In 2016, LBFD spent **$3 MILLION** on inventory. With this much volume, LBFD needs a management approach that involves stronger controls to manage the purchase, usage and storage of its inventory.

FINDINGS

LBFD USES EXTENSIVE NUMBER OF VENDORS AND PROCESSED OVER 2,000 INVOICES IN 2016 resulting in extra administrative costs and missed potential discounts on medical supplies and other inventory.

LBFD's ORDERING, RECEIVING & STORAGE FUNCTIONS ARE PERFORMED BY ONE EMPLOYEE increasing significantly the risk for errors or fraud to go undetected.

LBFD LACKS ADEQUATE POLICIES AND PROCEDURES creating inefficiencies that could lead to higher costs and waste of resources.

LBFD HAS A COMPLETELY MANUAL SYSTEM WITH NO INVENTORY DATA making it difficult to identify purchasing trends and track items needed for operations.

CITY AUDITOR'S RECOMMENDATIONS:

➡ Update inventory policies and procedures to provide structure, roles & responsibilities, and guidance.

➡ Develop an inventory management plan to include data analysis and automation of key functions.

➡ Have more than one employee responsible for the duties in the inventory management process.

LBFD Management Response:

Management agreed to 20 of 21 recommendations. LBFD recognized the importance of having more than one employee responsible for parts of the inventory management process but stated that due to resource constraints this requirement would not always be feasible. However, segregation of duties is a critical inventory and financial control essential to protecting LBFD against inventory errors and fraud. Several audit recommendations can improve efficiencies to free up staff time and allow for greater separation of duties.

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Executive Summary

Appropriate inventory is critical to respond to emergencies.

The City Auditor's Office completed an audit of the Long Beach Fire Department's (Department) inventory management and associated internal controls at the request of Department management. We commend management for this proactive effort to identify and correct operational weaknesses to function more effectively and efficiently.

The Department purchased $3M worth of inventory in 2016, averaging $58K per week.

The Department's mission is to "protect lives, property and the environment, improving the quality of life and safety of the community." Having the appropriate inventory stocked and available is critical to the Department's ability to respond effectively to emergencies and fulfill everyday duties. The Department purchased an estimated $3 million of inventory in calendar year 2016, averaging approximately $58,000 of purchases per week or $11,500 per day. This inventory is added to existing inventory stored at the warehouse and throughout the City's 23 fire stations and other facilities. The Department's inventory is comprised of three primary types of items as illustrated in Figure 1 below, along with miscellaneous items.

Figure 1.
Examples of Types of Inventory in Each Category

GENERAL	MEDICAL	EQUIPMENT
Batteries	Pharmaceuticals	Saws
Kitchen Items	First Aid Supplies	Personal Protective Gear
Custodial Supplies	Tourniquets	Hoses and Nozzles
Office Supplies	Stretchers	Ladders

The United States Government Accountability Office (GAO)[1] issued best practices as a framework and guide to improve the accuracy and reliability of the government's inventory related data. The GAO's best practices have been successfully implemented by organizations recognized for their inventory management practices and is applicable to any governmental or nongovernmental entity holding inventory, property or equipment.

Managing inventory is critical to controlling cost, operational efficiency and mission readiness.

Per the GAO, accurate and reliable data is essential to an efficient and effective operating environment. Managers need to know how much inventory there is and where it is to make effective budgeting, operating, and financial decisions. Managing the purchases, storage and usage of inventory is critical to controlling cost, operational efficiency and mission readiness.

Due to the amount of funds the Department spends on inventory and the importance of inventory items to operations, a well-thought-out management

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[1] The U.S. Government Accountability Office (GAO) is an independent nonpartisan agency that works for Congress and investigates how the federal government spends taxpayer dollars by auditing agency operations and reporting on how well government policies and programs are meeting objectives.

strategy along with effective controls are critical to ensure that the Department's resources are spent appropriately, and that inventory is accounted for and readily available for operational needs.
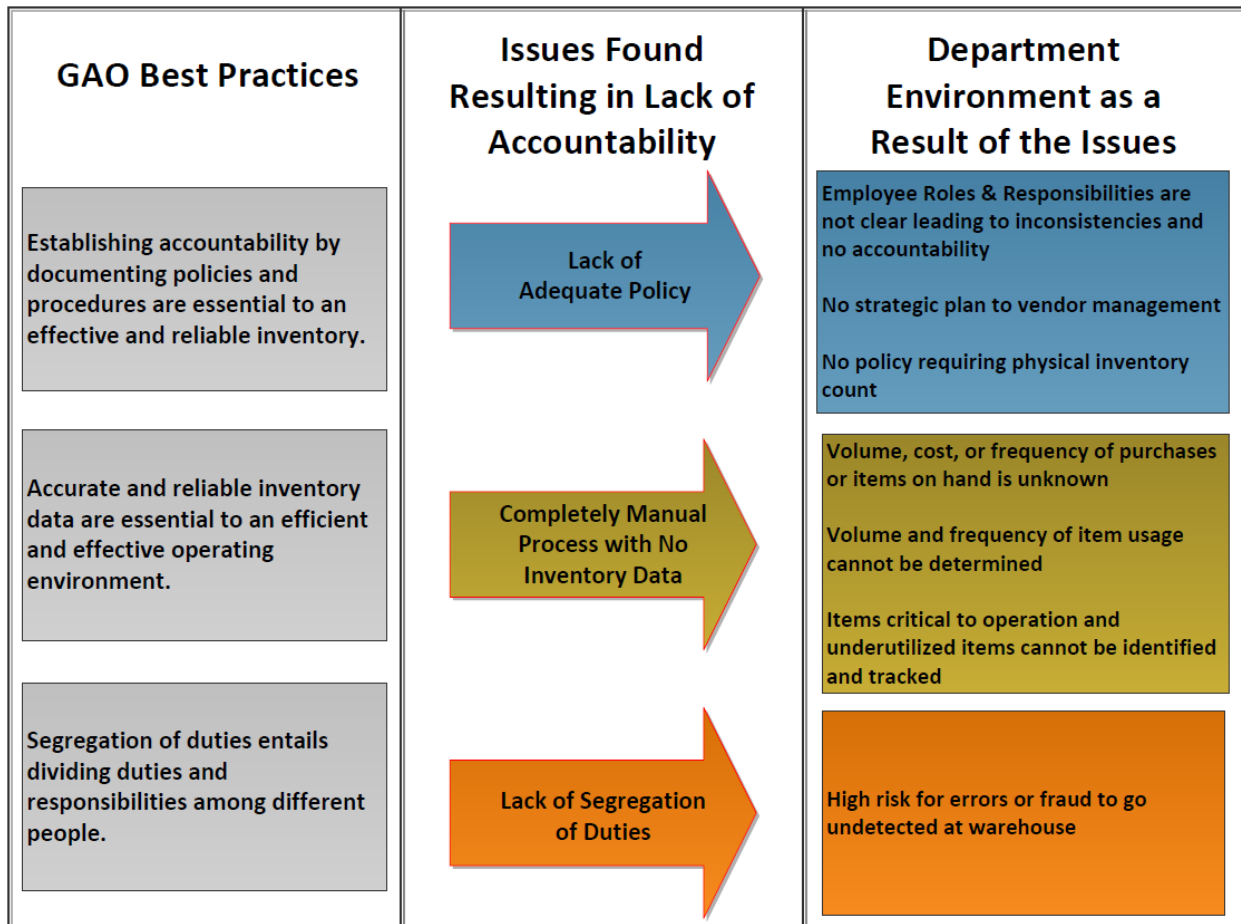
Our audit found the Department lacks an overall strategic approach to manage inventory that can ensure accountability throughout the inventory management process. Accountability with respect to inventory is created through sound policy that is enforced and ensures adequate separation of inventory duties. Policies and procedures define roles and responsibilities for all employees conducting physical inventory counts, managing vendors appropriately, and using data to monitor activity and make management decisions.

These elements do not exist in the current environment which exposes the Department to significant risk for error, fraud and waste. Furthermore, the current inventory operations rely on a completely manual system that lacks meaningful data to inform inventory purchasing and control decisions. Current operations allow an environment for fraud, waste and error to occur and easily be undetected. We have categorized the results of our audit into three overarching issues, as illustrated in Figure 2 below.

Figure 2.
Best Practices Compared to the Environment Found in the Department

GAO Best Practices	Issues Found Resulting in Lack of Accountability	Department Environment as a Result of the Issues
Establishing accountability by documenting policies and procedures are essential to an effective and reliable inventory.	Lack of Adequate Policy	Employee Roles & Responsibilities are not clear leading to inconsistencies and no accountability No strategic plan to vendor management No policy requiring physical inventory count
Accurate and reliable inventory data are essential to an efficient and effective operating environment.	Completely Manual Process with No Inventory Data	Volume, cost, or frequency of purchases or items on hand is unknown Volume and frequency of item usage cannot be determined Items critical to operation and underutilized items cannot be identified and tracked
Segregation of duties entails dividing duties and responsibilities among different people.	Lack of Segregation of Duties	High risk for errors or fraud to go undetected at warehouse

We recommend the Department develop an inventory management plan and upgrade from a manual to automated system.

We recommend the Department develop an achievable inventory management plan that includes sound policy, effective controls, and the usage of reliable data to make decisions and manage inventory. We recommend that the inventory plan encompasses all three key components of the process: purchases, usage and storage. We also recommend the Department upgrade from a manual to automated system which provides detailed records and will assist the Department with meeting the goals of their strategic plan and develop a level of accountability around the management of their inventory.

We would like to thank Department staff for their remarkable level of cooperation, and we appreciate their efforts and desire to improve processes and better secure inventory.

I. Overall Management of Inventory Process

Inventory[2] needs to be managed as if it is money. Like cash, it is an asset of value that is heavily exposed to the risk of fraud, waste and abuse. The basics of an effective inventory control system include policies and procedures, training, compliance, inventory counts, storage, and a reliable set of data. However, the responsibility and accountability of the safeguarding of inventory belongs to all levels involved and is instrumental to the effectiveness of the plan.

The Department purchases an estimated $3 million of inventory per year and relies heavily on the inventory to fulfill its mission of protecting lives, property and environment. We found areas for improvement with all key elements of the inventory process and grouped results into three overarching categories: inadequate policy, no inventory data, and segregation of duties.

We encourage management to move forward with obtaining an automated system, and to develop a comprehensive strategic plan to govern and create accountability over all key areas of the inventory process.

Inadequate Policy Governing Inventory Process

The GAO[3] states that establishing and documenting policies and defined procedures are the foundation of managing an effective and reliable inventory. Policies and procedures demonstrate management's commitment to the inventory process and provide clear communication, comprehensive instructions, and guidelines to all employees. Established written policies and procedures also help to ensure consistent and accurate compliance and application. Policies and procedures should also become the basis for training employees and be reviewed periodically for updates.

The Department purchases a significant amount of inventory per year, consisting of items such as ladders, hoses, pharmaceuticals, and stretchers. Inventory is stored at the warehouse and throughout the Department's 23 fire stations. All employees are involved, in some capacity, throughout the entire process of purchasing, usage and storage of inventory. Due to the volume, nature, storage locations and number of individuals involved, the inventory process is complex. The Department provided us with four written policies that are intended to govern the inventory process.

> *Policy 1.3.27.0 Storekeeper General & Specific Duties & Responsibilities – 2 pages*
> *Policy 1.18.2.0 Inventory Control Report – 1.5 pages*
> *Policy 3.6.6.0 Medical Supplies & Pharmaceuticals – 1.5 pages*
> *Policy 3.7.2.0 Inventory & Ordering of Medical Supplies – 2.5 pages*

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[2] Inventory represents items such as stretchers, pharmaceuticals, ladders and hoses, tools, custodial supplies, etc.
[3] GAO-02-447G Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property.

Current policies are not comprehensive enough for the complex inventory process.

These brief policies do not reflect current practice, are not comprehensive enough, and lack critical information needed to provide effective structure and guidance to employees. The effects of inadequate policy and guidance are significant for the overall accountability for inventory and the ability of the Department to fulfill its critical mission.

1.a) Roles & Responsibilities Are Not Clearly Defined

Holding the appropriate level of management responsible for the overall inventory process establishes accountability. Accountability within an organization should exist from the top of the organization to the lowest level. Roles and responsibilities should be specifically designated and assigned. Accountability should be established in job descriptions and expectations and then communicated to employees.

Inventory inefficiencies exist due to employees not clearly understanding their roles.

Roles and responsibilities for those involved in the Department's inventory process are not clearly defined in policy or understood by those involved. This results in employees not clearly understanding their role and how to perform their functions effectively, leading to inefficiencies and inconsistency in the process and exposing the Department to waste and abuse of resources.

Throughout the audit, we found numerous examples of how the lack of sufficient policy to guide employees and their behaviors can lead to questionable decisions and business practices. Table 1 illustrates three examples that highlight risks resulting from undefined or unclear employee roles and responsibilities in purchasing inventory.

Table 1. Examples of the Effects of Not Having Clear Roles and Responsibilities Noted During Audit - Calendar Year 2016	
No policy exists to govern when employee purchases are allowed and appropriate. There is also no policy to place other parameters around these purchases.	Example #1: Approximately 91 employees made purchases from vendors of their choice and were reimbursed directly. Many of the items purchased are easily transferable to personal property such as power tools, printer ink, digital cameras, etc.
No policy exists to govern shipment location of purchases made by employees.	Example #2: Employees have inventory items shipped to their personal residence versus the warehouse or fire station. This practice exposes the Department to not only risk and abuse but also liability.
While an approval process exists for employee purchases, this process is not defined in policy and is not communicated to employees.	Example #3: The approval process is not consistently followed by employees. Items such as drill bit sets and barstools[4] were purchased without adequate approval by management.

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[4] The Department explained that the barstools were purchased to fit under a work bench in a newly purchased Fire Boat.

1.b) Lack of a Strategic Approach for Vendor Management

Per the GAO[5], an effective strategic plan for vendor management can assist the organization to better leverage its buying power, reduce costs, better manage vendors, and improve the quality of products purchased. This approach should be outlined in a documented policy that includes instructions on the discharge of duties. These responsibilities should be clearly explained to individual staff, so that they know exactly what authorities and discretion are given. This policy should also include establishment of criteria in selection of vendors.

The Department lacks a strategic approach for managing its vendors.

The Department neither has a clear plan nor policy for effective vendor management. Except for using citywide contracts, vendor selection is generally left to the discretion of the employee making the purchase. Further, the Department often approaches purchases from an as needed perspective and does not sufficiently consider future needs and/or existing inventory when placing orders.

Risk and inefficiencies occur when organizations lack a plan to manage vendors and purchases.

Throughout the audit, we found numerous examples of how the absence of sufficient policy to guide employees and their behaviors can lead to questionable decisions and business practices. Table 2 illustrates three examples that highlight risks and inefficiencies that occur when an organization lacks a plan to manage vendors and purchases.

Table 2. Examples of the Effects of Lacking a Strategic Approach to Vendor Management Noted During Audit - Calendar Year 2016	
There is no plan or identified list of preferred vendors. Employees order from their vendor of choice.	Example #1: The Department used a total of 134 vendors to purchase inventory and potentially benefits from discount or set pricing for an estimated 71 vendors that are used by other City departments or have BPOs/contracts directly with the Department. The remaining 63 vendors are exclusively used by the Department and do not have BPOs/contracts with the Department.
Reducing the number of vendors, along with the volume of orders, will streamline the purchasing process, reduce administrative costs, and create more price discount opportunities.	Example #2: The Department processed over 2,000 invoices related to inventory purchases. This equates to an average of 8 invoices processed per day. The Department's as needed purchasing approach creates inefficiencies and does not use their resources in the most effective way.
Reducing the number of vendors will increase the Department's ability to negotiate discounted pricing and focus on quality products.	Example #3: The Department purchased approximately $837,000 of medical inventory from 16 different vendors. While we acknowledge that the Department has needs for specialized items, based on our research, it appears that many of these purchases could have been made with two vendors instead of 16.

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[5] GAO-11-318SP: General government: Applying strategic sourcing best practices throughout the federal procurement system could save billions of dollars annually.

The fire departments surveyed use an average of 46 vendors, while Long Beach Fire uses 134.

We surveyed five fire departments to compare the number of vendors used by other agencies. As shown in Graph 1 below, other comparable fire departments use an average of 46 vendors, which is 66% fewer than the Long Beach Fire Department's vendor count of 134.

Graph 1.
Fire Department Benchmarking Analysis
Number of Vendors Used
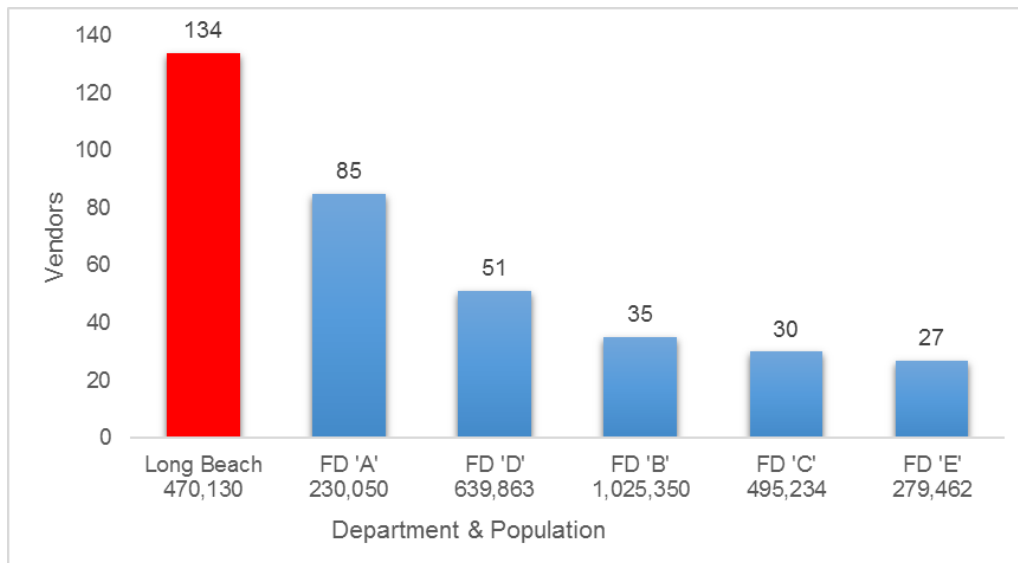
FD: Fire Department

The risk of not managing vendors can expose the Department to errors, fraud and waste.

While vendor management may not be viewed as a priority in many organizations, the risk of not managing vendors can be significant and can expose the Department to fraud, waste and abuse of resources. For example, Department employees could be purchasing from suppliers with poor track records and sub-standard products.

To develop a strategic plan and to better manage vendors, the Department needs to better track its needs so that the plan developed can leverage vendors to make best use of the Department's resources.

1.c) No Policy Requiring a Physical Inventory Count

The inventory count process is an integral component of an organization's internal control environment, and management's commitment is critical to establishing effective and reliable internal controls.

The Department spent $3M worth of inventory, but does not have policy requiring physical inventory verification.

With an estimated $3 million of inventory purchases in calendar year 2016 and multiple storage locations, physical inventory counts are critical to verify the existence and completeness of inventory records. However, inventory counts are neither required by policy nor conducted by the Department. Conducting inventory counts would not only verify the existence and completeness of inventory, but would also provide reliable information for management to make decisions.

Recommendations:

1.1.   Update policy to include guidance and procedures for the employees who are involved in the inventory process, including key responsibilities and tasks in purchasing, usage and storage.

1.2.   Require Department employees to ship all inventory purchases to Department locations.

1.3.   Ensure employee requests for reimbursement memoranda are complete and have the approval signature from the proper approval level authority.

1.4.   Develop policy and processes that discourage employee reimbursements. However, if employee reimbursements continue to be allowed:

   a. Develop policies that outline reimbursement purchases;

   b. Communicate policy to all Department employees regarding purchases made outside of the warehouse; and

   c. Periodically analyze inventory needed by fire stations and Department employees to better stock the warehouse.

1.5.   Analyze purchasing and usage patterns, and identify opportunities to consolidate the number of orders for similar items.

1.6.   Analyze the number of vendors used and identify the items that can be purchased from these vendors. Take this information to vendors and shop for discounted prices and other incentives vendors can offer the Department. Use these vendors as "preferred vendors" and when prudent, enter into a contract to secure cost savings.

1.7.   Consider using vendors that can deliver inventory, such as medical inventory, directly to fire stations to free up resources for the warehouse.

1.8.   Update policy to include guidance and procedures to:

   a. Perform periodic inventories and document the results;

   b. Track inventory usage at the warehouse and the fire stations;

   c. Communicate the results of the inventories on a regular basis to enhance transparency and to open communication channels between the warehouse and the fire stations; and

   d. Create methods of oversight for management to employ to verify compliance with the policies.

Finding #2   *Completely Manual Process with No Inventory Data*

Per the GAO, managers and decision-makers need to know how much inventory there is and where it is to make effective decisions related to budgeting, purchasing and storage. Managing the acquisition, usage and storage of inventory is critical to controlling cost, operational efficiency, and mission readiness. Inventory accountability necessitates that detailed records of acquired inventory be maintained. Accountability reduces the risk of undetected theft and loss, unexpected shortages of critical items, and unnecessary purchases of items already on hand.
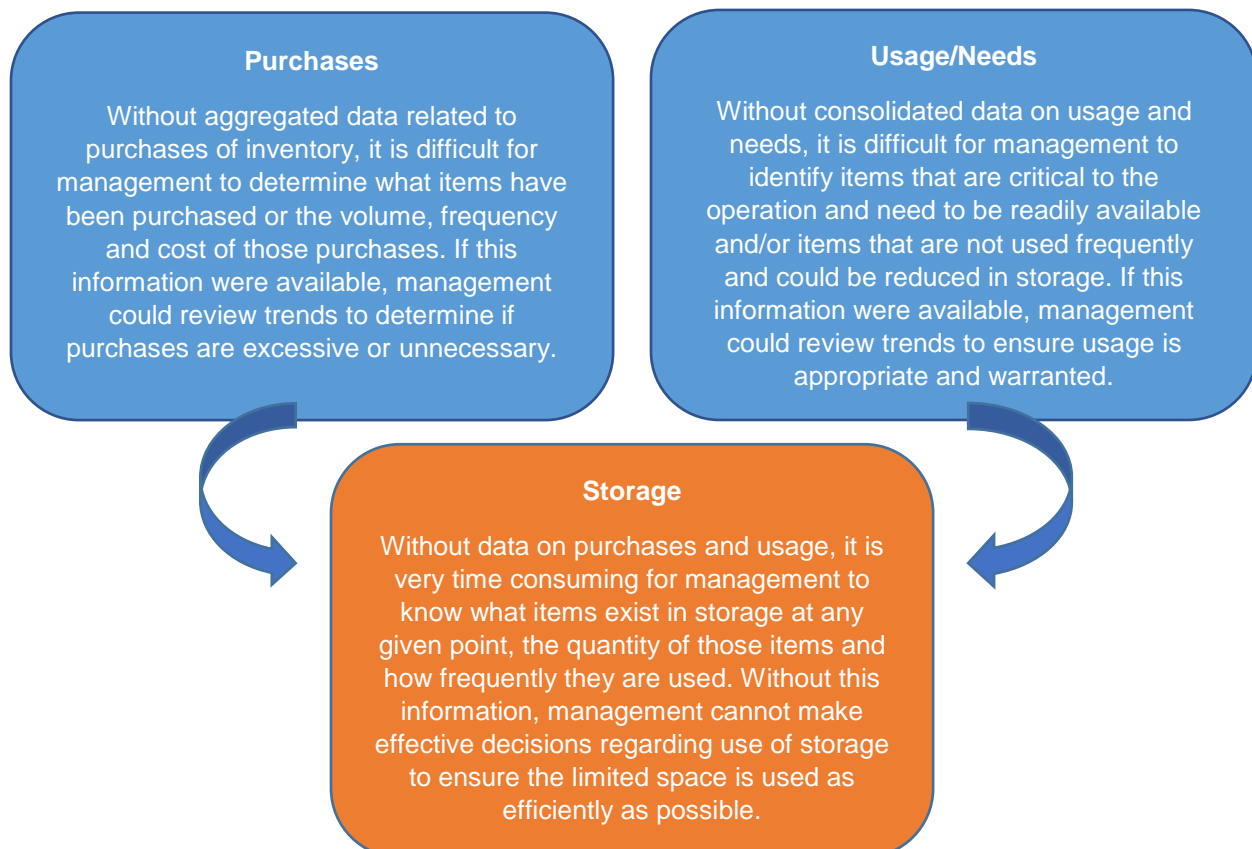
The inventory management process is manual and does not involve the use of technology.

The Department's process surrounding the management of inventory is manual and disconnected. Items are purchased as needed, usage is not tracked, and items in storage at the warehouse are tracked manually. At no point is data related to the three key process components of purchasing, usage and storage pulled together and reconciled to identify what is occurring and needed with the inventory.

The lack of sufficient inventory data is resulting in waste and inefficiencies.

This is especially concerning given that the inventory directly supports the Department's core operations and its ability to fulfill its mission. Figure 3 below illustrates the effects of the absence of an automated system that can track data and provide reports to management so that it can effectively manage the inventory.

Figure 3.
Effects of Manual System with No Inventory Data

Purchases

Without aggregated data related to purchases of inventory, it is difficult for management to determine what items have been purchased or the volume, frequency and cost of those purchases. If this information were available, management could review trends to determine if purchases are excessive or unnecessary.

Usage/Needs

Without consolidated data on usage and needs, it is difficult for management to identify items that are critical to the operation and need to be readily available and/or items that are not used frequently and could be reduced in storage. If this information were available, management could review trends to ensure usage is appropriate and warranted.

Storage

Without data on purchases and usage, it is very time consuming for management to know what items exist in storage at any given point, the quantity of those items and how frequently they are used. Without this information, management cannot make effective decisions regarding use of storage to ensure the limited space is used as efficiently as possible.

Throughout the audit, we found numerous examples of how the absence of sufficient inventory data to guide decisions can lead to inefficiencies and waste. Table 3 illustrates examples that highlight inefficiencies and waste that occur when data is not available to manage purchases, usage, and storage of inventory.

Table 3. Examples of the Effects of a Completely Manual Inventory Process with No Data Noted During Audit - Calendar Year 2016	
It is difficult to ensure items are used before they expire and reduce waste without tracking what exists in storage and the life of those items.	Example #1: Expired medications worth an estimated $17,000 were found at the warehouse and disposed of.
If needs/usage were tracked, then personnel could identify how many items are typically used/needed on a periodic basis and order from the warehouse in bulk to reduce administrative and delivery costs.	Example #3: Fire stations order medical items from the warehouse almost daily. The manual process creates inefficiencies as requisitions must be processed and warehouse personnel must make multiple trips to deliver items.
Inventory lists of some equipment items (not all) are maintained by nine subject matter experts who are sworn personnel. This is an attempt by the Department to maintain a manual account of what equipment is available on hand.	Example #4: The inventory lists are not complete, not consistent, and were missing key information relating to the equipment such as location of equipment, unique identifiers, last test date, etc. This key information for all equipment could easily be maintained in an automated system. This would also free up sworn personnel, who currently spend time managing these lists, to spend time on other duties.

The Department requested this audit to improve the current inventory process.

We commend the Department for recognizing the need to improve its current inventory process and, thus, requesting this audit. We recommend the Department not only upgrade from a manual to an automated system, but that it also consider the effects of not managing the key components of the inventory process, and implement policies and processes to ensure reliable data exists in the system.

Management must ensure the reliability of the inventory data for the automated system to work effectively.

However, an automated system and the integrated data that the system would subsequently produce will not, by themselves, bring about the improvements that the Department seeks. Management must ensure that the data is used effectively through reconciliations and reporting, so that management can use the data to make better informed decisions as to how to manage the key components of the inventory process.

Recommendations:

We recognize that the root cause of the issue goes beyond implementing an inventory management software system. Therefore, we recommend that the Department:

2.1. **Develop an achievable inventory management plan that considers all the key policy components. This plan should aim to help the Department assess what its needs are and should be treated as a foundation to build valuable inventory data.**

2.2. **Once an achievable inventory management plan is in motion and has been communicated to and is understood by employees, implement a software system to integrate purchasing with warehousing and accounting to facilitate inventory tracking.**

Finding #3   *Lack of Segregation of Duties*

Separation of duties is essential to protect the Department against errors and fraud.

Segregation of duties entails separating key duties and responsibilities among different people to reduce the risk of error and fraud, so that no one single individual can adversely affect the accuracy and integrity of the inventory. The three key areas of separation are the physical custody of inventory, processing of inventory transactions, and approval of transactions.

The Department's current controls involve the Operations Deputy Chief approving orders and invoices. However, during the audit, we found a lack of separation of duties at the warehouse as one employee performs all three of the critical functions. One employee initiates orders and selects the vendor. Once the order is delivered, the same employee receives the invoice, initials it noting that inventory was received, and forwards it for payment approval. The same employee keeps custody of the inventory while in the warehouse.

An employee assigned to multiple roles could easily abuse the controls in the Department's inventory process.

Although we did not find fraud, one employee's ability to perform all three of these functions significantly increases the risk for fraud or error to occur and go undetected. Furthermore, the manual system used to track purchases and items in storage only heightens the risk of fraud or error. Examples of the three critical functions in the Department's inventory process performed by one employee, along with the potential consequences, are illustrated in Table 4 below.

Table 4.
Potential Risks Associated with Limited Segregation of Duties

Functions that should be separated but are currently performed by one employee	Potential Risks of Not Separating Functions
1. Determines the item and quantity to order and places order from selected vendor	➢ Improper over-ordering from selected vendor
	➢ Falsify incoming shipments
2. Receives the shipment and records receipt of items	➢ Personal use of inventory
	➢ Theft or loss of goods
3. Receives the vendor invoice and reviews for accuracy before forwarding to accoutning for payment	➢ Vendor kickbacks
	➢ Improper purchasing

Recommendations:

3.1 **Stop having one employee be responsible for key parts of the inventory management process from ordering to reviewing invoices.**

3.2 **Update and revise the warehouse policies and procedures, and formalize guidance to include at a minimum:**

   a. Language that includes inventory management functions at the warehouse describing how duties will remain segregated.

   b. Use the available warehouse clerk to divide the duties and responsibilities, ensuring that loopholes in the process are closed.

3.3 **Assess the current procedures and add mitigating controls for these processes:**

   a. Ordering: use the data gathered from the recommendations identified in Findings 1 and 2 and have management from the Administration Bureau periodically analyze the volume of purchases to check for any irregularities or red flags.

   b. Receiving: require dual counts with signatures from both warehouse employees.

II. Background

The Fire Department is responsible for protecting the lives, property and the environment, and improving the quality and safety of the citizens of Long Beach. To accomplish its mission, the Department relies heavily on its inventory to respond to emergencies and complete everyday duties and tasks.

As shown in Chart 1, the Department is organized into four main bureaus: Administration, Fire Prevention, Support Services and Operations. Although each bureau purchases its own inventory, the two main bureaus responsible for inventory management are the Administration and Operations Bureaus.

Chart 1.
Fire Department Organizational Structure
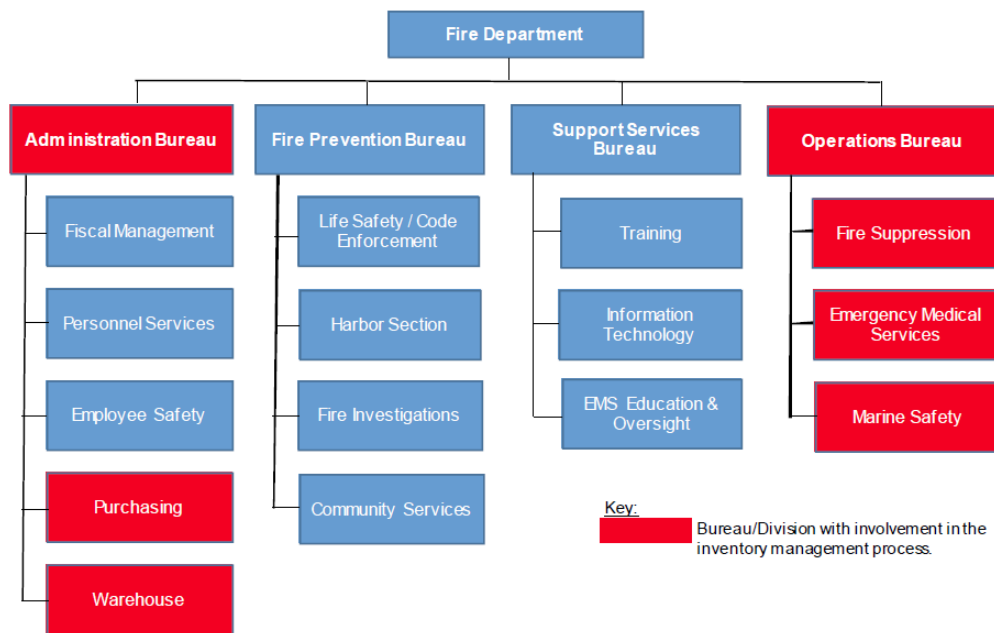
The Administration Bureau includes the warehouse which is staffed by a Storekeeper and Store Clerk. The warehouse is responsible for purchasing and receiving general, medical and equipment inventory from vendors and distributing those items to the Department's 23 fire stations. To obtain necessary inventory, fire station employees submit orders to the warehouse via requisition forms. The warehouse maintains separate catalogs for general and medical inventory which fire station employees can reference when placing their orders.

The Operations Bureau oversees fire and marine personnel who work at the fire stations and who are responsible for managing the general and medical

inventory at the fire stations. In addition to managing the general and medical inventory, fire station employees are required to conduct daily inspections of equipment used on the emergency vehicles. To further oversee its equipment, the Department assigns a Battalion Chief as Equipment Committee Chair and designates nine employees as Subject Matter Experts (SMEs) to monitor and track specific equipment items. The Equipment Committee Chair, together with the SMEs and warehouse Storekeeper, determine equipment needs and initiate equipment purchases.

Types of Inventory

For the purposes of this audit, we categorized the Department's inventory purchases into four main groupings – general inventory and medical inventory (based on items directly listed in the catalogs), equipment inventory (based on the SME designations) and miscellaneous.

Inventory Expenditures

As shown in Table 5, the Fire Department spent approximately $3 million on inventory related purchases during calendar year 2016. To estimate the breakdown of purchases across the four inventory categories, we used the City's financial data in conjunction with our own analysis of purchases.

Table 5.
Fire Department Inventory Purchases by Inventory Category
For Calendar Year 2016

Inventory Category	Amount
General	$219,526
Medical	836,898
Equipment	1,017,495
Miscellaneous	938,103
Totals	$3,012,022

III. Objective, Scope, and Methodology

The objective of this audit was to assess the effectiveness of the Fire Department's inventory management approach to ensuring cost effectiveness and internal controls. The audit scope covered inventory related purchases during Calendar Year 2016. To achieve this objective, we:

- Conducted site visits and interviewed management and staff involved in the authorization, ordering, receiving, and oversight of Department supplies and equipment;

- Analyzed controls surrounding the processes for purchasing general, medical, equipment and miscellaneous inventory, as well as those surrounding receiving of shipments and invoice approval;

- Reviewed a sample of vendor invoices and other Department documentation for general, medical, equipment and miscellaneous inventory purchases during calendar year 2016;

- Benchmarked other fire departments with similar characteristics to identify best practices for handling inventory (see below for more details); and

- Researched inventory management best practices that could be incorporated into the Fire Department's processes for improvement (see below for more details).

Benchmarking

To better understand fire department inventory management strategies, the audit team benchmarked against comparable fire departments. The audit team selected fire departments with a similar number of employees, fire stations, emergency calls received, as well as similar populations served as Long Beach's Fire Department. We asked these departments about their overall inventory management strategies, which included discussions about their policies, organizational structure, inventory tracking practices, and vendor management.

GAO Best Practices

To strengthen our inventory management knowledge, the audit team thoroughly researched inventory management best practices. Best practices can provide a framework for creating an organized, effective, and cost-efficient inventory system. Throughout the audit, we compared these best practices to current practice at the Fire Department, and sought opportunities for the Department to improve upon its inventory management, when practical, by incorporating best practices.

Government Auditing Standards

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards (GAGAS). 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 objective.

IV. Management's Response

Following this page is Management's Response to the audit findings and recommendations.

City of Long Beach
Working Together to Serve

Memorandum

Date: December 4, 2017

To: Patrick H. West, City Manager

From: Michael A. DuRee, Fire Chief

For: Laura Doud, City Auditor

Subject: **Fire Department Inventory Management Audit**

In December of 2016, I requested that the City Auditor's Office conduct an internal control audit of the Fire Department's inventory management processes to ensure that our employees have the tools to do their jobs in the most efficient and effective manner possible. All Fire Department staff involved in the many aspects of the inventory management process are dedicated to the success of the Fire Department.

I would like to thank the City Auditor and her staff for working with Fire management and staff in a collaborative and professional manner, while thoroughly exploring areas in which the Fire Department can improve its inventory management processes. Over the next several months, Fire Department management will ensure that the recommendations presented to us by the City Auditor's Office in the accompanying report are implemented appropriately.

We are always open to suggestions for continuous improvement and once again thank the Auditor and her staff for their assistance and recommendations.

MAD:DH
Q:/Administration/Letters and Memos/TFF Inventory Audit Management Response

CC: Tom Modica, Assistant City Manager
      Kevin Jackson, Deputy City Manager
      John Gross, Director of Financial Management
      Rebecca Jimenez, Assistant to the City Manager

MANAGEMENT RESPONSE AND ACTION PLAN

Fire Department
Inventory Management Audit

No.	Recommendation	Priority	Page #	Agree or Disagree	Responsible Party	Action Plan / Explanation for Disagreement	Target Date for Implementation
1.1	Update policy to include guidance and procedures for the employees who are involved in the inventory process, including key responsibilities and tasks in purchasing, usage and storage.	M	8	Agree	Manager-Administration; Deputy Chief-Operations	The Department will update policies outlining responsibilities of all employees involved in the inventory process.	April 30, 2018
1.2	Require Department employees to ship all inventory purchases to Department locations.	H	8	Agree	Manager-Administration; Deputy Chief-Operations	The Department has already communicated direction to all empoyees via memorandum. Will also incorporate into above policy revisions.	Completed
1.3	Ensure employee requests for reimbursement memoranda are complete and have the approval signature from the proper approval level authority.	H	8	Agree	Manager-Administration; Deputy Chief-Operations	The Department has already communicated direction to all empoyees via memorandum. Will also incorporate into above policy revisions.	Completed
1.4	Develop policy and processes that discourage employee reimbursements.	M	8	Agree	Manager-Administration; Deputy Chief-Operations	The Department will incorporate into policy revisions that purchases should be made through purchase orders. The policy revision will include criteria and process for exceptions.	April 30, 2018
	However, if employee reimbursements continue to be allowed:						
	a. Develop policies that outline reimbursement purchases;	M	8	Agree	Manager-Administration; Deputy Chief-Operations	As noted above, policy revisions will indicate when such purchases are acceptable and outline process for exceptions.	April 30, 2018
	b. Communicate policy to all Department employees regarding purchases made outside of the warehouse; and	M	8	Agree	Manager-Administration; Deputy Chief-Operations	Once completed, policy revisions will be communicated to all Fire Department employees via memorandum.	April 30, 2018
	c. Periodically analyze inventory needed by fire stations and Department employees to better stock the warehouse.	M	8	Agree	Manager-Administration; Storekeeper	Fire Administration will review items commonly purchased through employee reimbursement and determine which items should be stocked in the warehouse.	June 30, 2018 and ongoing
1.5	Analyze purchasing and usage patterns, and identify opportunities to consolidate the number of orders for similar items.	M	8	Agree	Manager-Administration; Storekeeper; Deputy Chief-Operations	Fire Administration and Operations will begin to identify opportunities to consolidate orders to vendors for similar items.	April 30, 2018

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MANAGEMENT RESPONSE AND ACTION PLAN

Fire Department
Inventory Management Audit

No.	Recommendation	Priority	Page #	Agree or Disagree	Responsible Party	Action Plan / Explanation for Disagreement	Target Date for Implementation
1.6	Analyze the number of vendors used and identify the items that can be purchased from these vendors. Take this information to vendors and shop for discounted prices and other incentives vendors can offer the Department. Use these vendors as "preferred vendors" and when prudent, enter into a contract to secure cost savings.	M	8	Agree	Manager-Administration; Storekeeper; Purchasing Agent	The Fire Department will continue to work proactively with the City's Purchasing Division to attempt to reduce the number of vendors used, taking into consideration that there are many specialty products necessary for Fire and Emergency Medical Services operations that are only carried by one vendor.	June 30, 2018
1.7	Consider using vendors that can deliver inventory, such as medical inventory, directly to fire stations to free up resources for the warehouse.	M	8	Agree	Manager-Administration; Deputy Chief-Operations	Fire management will explore this option and determine whether it is a viable and efficient way of delivering inventory items.	June 30, 2018
1.8	Update policy to include guidance and procedures to:						
	a. Perform periodic inventories and document the results;	M	8	Agree	Manager-Administration	Fire Administration will incorporate into above-referenced policy revisions.	April 30, 2018
	b. Track inventory usage at the warehouse and the fire stations;	M	8	Agree	Manager-Administration	Fire Administration will incorporate into above-referenced policy revisions.	April 30, 2018
	c. Communicate the results of the inventories on a regular basis to enhance transparency and to open communication channels between the warehouse and the fire stations; and	M	8	Agree	Manager-Administration	Fire Administration will incorporate into above-referenced policy revisions.	April 30, 2018
	d. Create methods of oversight for management to employ to verify compliance with the policies.	M	8	Agree	Manager-Administration	Fire Administration will incorporate into above-referenced policy revisions.	April 30, 2018
2.1	Develop an achievable inventory management plan that considers all the key policy components. This plan should aim to help the Department assess what its needs are and should be treated as a foundation to build valuable inventory data.	M	11	Agree	Manager-Administration	Fire Administration will develop an inventory management plan.	June 30, 2018
2.2	Once an achievable inventory management plan is in motion and has been communicated to and is understood by employees, implement a software system to integrate purchasing with warehousing and accounting to facilitate inventory tracking.	M	11	Agree	Manager-Administration (in conjunction with ERP Implementation)	Fire Administration will utilize the City's Enterprise Resource Planning (ERP) purchasing and inventory management system and implement for Fire Department use, once the system is fully developed. This will be a City-wide solution utilized by all City departments.	To be determined

MANAGEMENT RESPONSE AND ACTION PLAN

Fire Department
Inventory Management Audit

No.	Recommendation	Priority	Page #	Agree or Disagree	Responsible Party	Action Plan / Explanation for Disagreement	Target Date for Implementation
3.1	Stop having one employee be responsible for key parts of the inventory management process from ordering to reviewing invoices.	H	12	Agree	Manager-Administration	The Department agrees that it is best to have a separation of duties in the inventory process and will do so whenever possible. However, it must be noted that the Fire Department Warehouse is staffed with two personnel -- a Storekeeper who oversees the daily warehouse functions, and a Stock and Receiving Clerk who assists in these duties and also functions as the Department's Courier, delivering equipment and supplies to the 30 Fire Department facilities daily. When the Stock and Receiving Clerk is away from the warehouse, the Storekeeper is the only employee available to perform the functions involved in the inventory management process. Further, it is important to note that there are currently management controls in place, such as management approval of purchase orders and management approval of invoices.	January 31, 2018
3.2	Update and revise the warehouse policies and procedures, and formalize guidance to include at a minimum:						
	a. Language that includes inventory management functions at the warehouse describing how duties will remain segregated.	H	12	Agree	Manager-Administration	Fire Administration will revise policy accordingly, keeping in mind that current staffing levels will not always allow for an ideal separation of duties.	January 31, 2018
	b. Use the available warehouse clerk to divide the duties and responsibilities, ensuring that loopholes in the process are closed.	H	12	Agree	Manager-Administration	Fire Administration will revise policy accordingly, keeping in mind that current staffing levels will not always allow for an ideal separation of duties.	January 31, 2018
3.3	Asses the current procedures and add mitigating controls for these processes:						
	a. Ordering: use the data gathered from the recommendations identified in Findings 1 and 2 and have management from the Administration Bureau periodically analyze the volume of purchases to check for any irregularities or red flags.	L	12	Agree	Manager-Administration	Once the purchasing and inventory module of the ERP system is implemented, Fire Administration will identify reports that will allow for the periodic analysis of purchases.	To be determined
	b. Receiving: require dual counts with signatures from both warehouse employees.	L	12	Disagree	Manager-Administration	Current staffing levels do not allow the Fire Department to meet this requirement. (Please refer to the response to Recommendation 3.1.)	

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MANAGEMENT RESPONSE AND ACTION PLAN

Fire Department

Inventory Management Audit

No.	Recommendation	Priority	Page #	Agree or Disagree	Responsible Party	Action Plan / Explanation for Disagreement	Target Date for Implementation

Priority

H – High Priority - The recommendation pertains to a serious or materially significant audit finding or control weakness. Due to the seriousness or significance of the matter, immediate management attention and appropriate corrective action is warranted.

M – Medium Priority - The recommendation pertains to a moderately significant or potentially serious audit finding or control weakness. Reasonably prompt corrective action should be taken by management to address the matter. Recommendation should be implemented no later than six months.

L – Low Priority - The recommendation pertains to an audit finding or control weakness of relatively minor significance or concern. The timing of any corrective action is left to management's discretion.

Yellow areas - to be completed by the department

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