Meeting Date: **9/9/2014**

Report Type: Staff/Discussion

Report ID: 2014-00653

City of SACRAMENTO **18**

City Council Report
915 I Street, 1st Floor
www.CityofSacramento.org

Title: City Auditor's Audit of the Fire Department Inventory System and Narcotics

Location: Citywide

Recommendation: Pass a Motion approving the City Auditor's Audit of the Fire Department Inventory System and Narcotics.

Contact: Jorge Oseguera, City Auditor, (916) 808-7270, Office of the City Auditor

Presenter: Jorge Oseguera, City Auditor, (916) 808-7270, Office of the City Auditor

Department: Mayor/Council
Division: Office of the City Auditor
Dept ID: 01001201
Attachments:
1-Description/Analysis
2-City Auditor's Audit of the Fire Department Inventory System and Narcotics

---

City Attorney Review

Approved as to Form
Sandra Talbott
8/27/2014 11:57:36 AM

Approvals/Acknowledgements

Department Director or Designee: Jorge Oseguera - 8/21/2014 10:50:46 AM

Back to Report Table of Contents

Description/Analysis

Issue Detail: This audit was approved as part of the 2013-2014 Audit Plan. According to City Code Chapter 2.18, the City Council should be kept apprised of the City Auditor's work. The Audit Committee shall receive, review, and forward to the full Council the City Auditor's updates and reports.

Policy Considerations: The City Auditor's presentation of the *Audit of the Fire Department Inventory System and Narcotics* is consistent with the Mayor and City Council's intent to have an independent audit function for the City of Sacramento.

Economic Impacts: None.

Environmental Considerations: None.

Sustainability: None.

Commission/Committee Action: The Audit Committee unanimously accepted this report on August 12, 2014 and forwarded it to the full City Council for approval.

Rationale for Recommendation: The report includes three findings and makes nineteen recommendations to address issues related to the Fire Department inventory systems and narcotics controls.

Financial Considerations: The costs of the *Audit of the Fire Department Inventory System and Narcotics* were funded out of the Office of the City Auditor Budget.

Local Business Enterprise (LBE): No goods or services are being purchased as a result of this report.

Back to Report Table of Contents

Report # 2014-02

Attachment 2

Audit of the Fire Department Inventory System and Narcotics

The Fire Department should implement inventory management best practices to improve accountability and accuracy

Recordkeeping and monitoring of narcotics should be strengthened to safeguard against fraud, waste, and abuse

A random drug and alcohol testing program could be implemented to further enhance controls over narcotics

Jorge Oseguera
City Auditor

Lynn Bashaw
Senior Auditor

Office Of The City Auditor
August, 2014

This Page Was Intentionally Left Blank

Table of Contents

Fact Sheet 5

Introduction 6

Background 6

Inventory Expenditures by Division 6

Emergency Medical Services Division 7

Fire Suppression, Logistics, Special Operations, and Training Divisions 8

Operative IQ 9

Emergency Medical Service Administration of Controlled Substances 9

Objective, Scope and Methodology 11

Finding 1: The Fire Department should implement inventory management best practices to improve accountability and accuracy 12

Best Practice #1: Assign responsibility for managing inventory and develop policies and procedures to provide clear and consistent direction 12

Best Practice #2: Establish performance goals and conduct regular inventory counts to identify discrepancies and to ensure the inventory records remain accurate and complete 14

Best Practice #3: Review system access levels to ensure only the appropriate parties have access and that segregation of duties is present within the system 16

Best Practice #4: Develop an ongoing process to provide regular reports to management so they can monitor the overall system and ensure internal controls are present and functioning properly 17

Finding 2: Recordkeeping and monitoring of narcotics should be strengthened to safeguard against fraud, waste, and abuse 20

Providing additional training on proper reconciliations 21

Improving the accuracy of the tracking spreadsheet 24

Ensuring medic log sheets contain dual signatures 25

Lack of segregation of duties 26

The Manual of Operations needs to be updated 27

Finding 3: A random drug and alcohol testing program could be implemented to further enhance controls over narcotics 28

Random drug and alcohol testing programs have already been implemented by other Fire Departments 28

The cost of a random drug testing program is relatively low 30

Department Response 32

This Page Was Intentionally Left Blank

City of SACRAMENTO
Office of the City Auditor

AUDIT FACT SHEET

RECOMMENDATIONS

We made numerous recommendations to enhance Fire Department inventory management practices. They include the following:

Incorporate Best Practices

- **Assign responsibility for managing inventory and develop policies to provide clear and consistent direction.**
- **Establish performance goals to determine if the system is functioning properly.**
- **Determine a schedule for regular and random inventory counts to ensure accuracy and identify outages.**
- **Require supervisory approval of inventory count adjustments and document the cause of the variance.**
- **Develop a mechanism to track discarded or expired medication.**
- **Develop a process to track actual usage of supplies.**
- **Work with the IT Department to implement system access best practices, including the concept of "least privileges."**
- **Develop a formal process for approving new user access and changes to access levels.**
- **Perform ongoing reviews of system access.**
- **Determine which standard reports will be run by management on a regular basis to monitor and assess the overall system health, accuracy, and cost effectiveness.**
- **Set up automatic delivery of key reports.**

Strengthen Controls Over Narcotics

- **Train staff on the proper use of a tracking sheet and the significance of dual signatures.**
- **Perform regular reconciliations of on hand narcotics inventories.**
- **Perform reconciliations of the narcotics tracking sheet to ensure they are all accounted for from delivery to disposal.**
- **Develop a process to review Medic log sheets before they are filed to ensure use of narcotics is witnessed by two individuals.**
- **Increase segregation of duties over narcotics processes.**
- **Perform random surprise counts of narcotics on hand.**
- **Update the Manual of Operations to reflect operational changes to the administration of narcotics.**

Audit of City Inventory Systems
Fire Department

August, 2014 2014-02

BACKGROUND

The City of Sacramento does not have an overarching inventory system and each department determines how best to track their inventory in relation to the services they provide. The level of sophistication in the management tools varies greatly and is primarily driven by the complexity and distribution of the inventory being managed. Funding for the City's inventory differs based on the department and the purpose of the inventory items. As there are several City departments managing various types of inventory, we performed a risk assessment and determined our time would be best spent in the IT Department and the Fire Department. This report is the second of two parts and focuses on the Fire Department's inventory systems.

FINDINGS

The Fire Department should implement inventory management best practices to improve accountability and accuracy

Inventory management best practices provide a framework for creating an effective and cost-efficient inventory system. We performed a high level review of the Fire Department's Operative IQ inventory processes and found that the department could benefit from incorporating inventory management best practices as they work towards full implementation of their newly acquired inventory system including:

- Assigning responsibility for managing inventory and developing policies that provide clear and consistent direction;
- Establishing performance goals and conducting regular inventory counts to identify discrepancies;
- Review system access levels to ensure only the appropriate parties have access and that segregation of duties is present within the system; and
- Developing an ongoing process to provide regular reports to management.

Recordkeeping and monitoring of narcotics should be strengthened to safeguard against fraud, waste, and abuse

The DEA's Practitioner's Manual emphasizes that proper dispensing and administering of narcotics is "critical to patient's health and to safeguarding society against the diversion of controlled substances." While we did find that good processes have been designed to address these requirements, we found errors and gaps in the narcotics sheets and incomplete medic logs which call into question the effectiveness of these controls.

A random drug and alcohol testing program could be implemented to improve controls over narcotics

While we did not find evidence of narcotics abuse during our review, a random drug testing program could be put into place to strengthen the control weaknesses identified in the previous finding. Implementing a random drug program would serve as an effective mechanism for detecting and deterring illegal drug use. In addition, a random drug and alcohol testing program would further enhance the Fire Department's core value of "upholding public trust by committing ourselves to the utmost professional and ethical behavior", with a relatively minimal cost of implementation.

Introduction

In accordance with the City Auditor's 2013/14 Audit Plan, we have completed the second part of an *Audit of City Inventory Systems*. In an effort to provide timely reporting, we are presenting this audit in multiple installments. The first installment was of the Information Technology Department's inventory systems and was issued in April of 2014 under report number 2014-01. This second segment consists of a risk assessment of the Fire Department's newly acquired Operative IQ inventory system and a review of the Fire Department's narcotics inventory process. In addition, the City Auditor received whistleblower complaints regarding the Fire Department's controls over medical supplies. We conducted this performance audit 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.

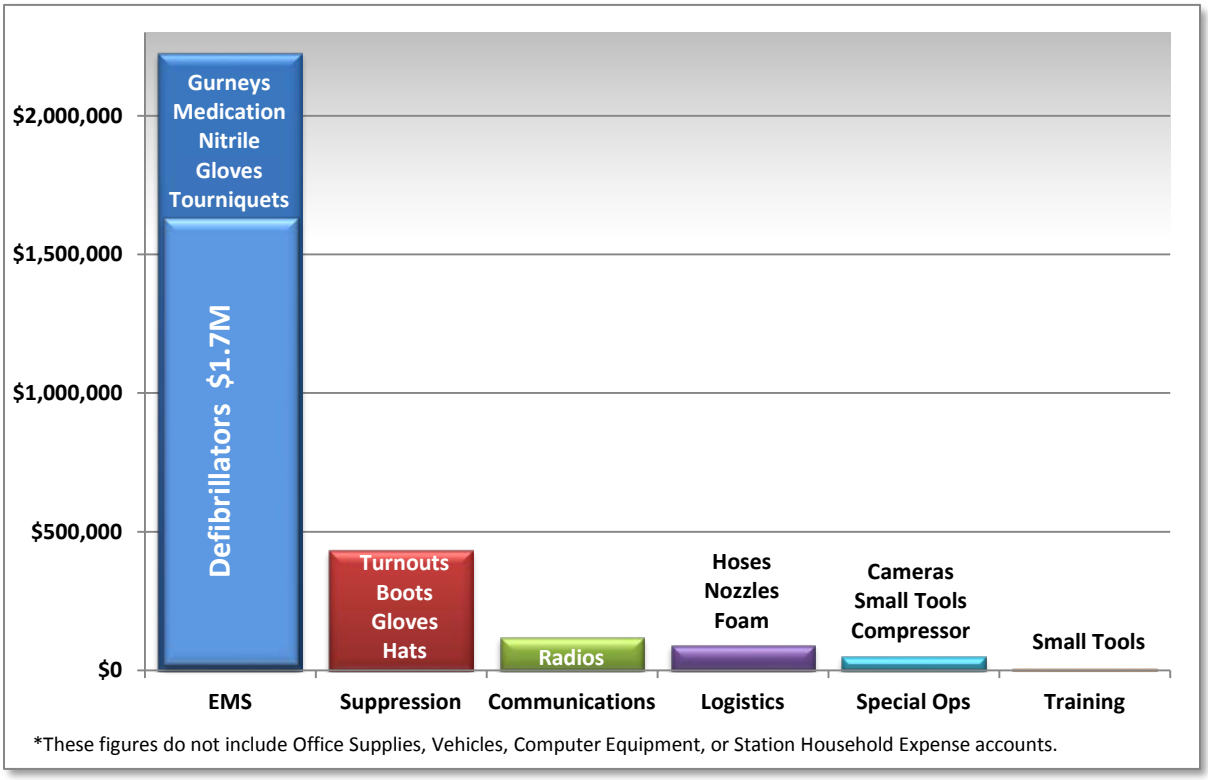
The City Auditor's Office would like to thank the Fire Department for their time and cooperation during the audit process. We would also like to recognize the Fire Department's Emergency Medical Services (EMS) personnel for their receptiveness to the audit and their willingness to collaborate.

Background

Inventory Expenditures by Division

The Fire Department purchases equipment and supplies used to support their mission of "protecting the community through effective and innovative public safety services." According to the City's financial system, the Fire Department spent approximately $3 million in accounts used for equipment and supplies in fiscal year 2013. As Figure 1 shows, we used the City's financial data to estimate how much was spent by each division on supplies and equipment. It is important to note that not all Fire Department divisions are represented in Figure 1 because some do not maintain inventory, such as Human Resources. In the figure below, we have also provided examples of the types of items purchased by these divisions.

Figure 1: Equipment and Supplies Expenditures in FY 2013 by Division



Source: Auditor generated based on eCAPS data

Emergency Medical Services Division

The Emergency Medical Services (EMS) Division provides advanced life support (ALS) and paramedic transport services to the local community. The EMS Division is comprised of 33 ALS companies, 9 administrative staff members, and employs 13 full time medic units (ambulances.) In calendar year 2013, the Fire Department responded to over 62,000 calls and transported over 35,000 patients. Over $2.2 million in medical supplies and equipment were purchased by the EMS Division in fiscal year 2013. However, it is important to note that $1.7 million of this was used towards a one-time purchase of 58 cardiac monitor/defibrillators. Cardiac monitor/defibrillators are portable units used to monitor patient vitals. Figure 2 is an example of a monitor/defibrillator. Additional examples of supplies purchased by the EMS Division include sheets, medical gloves, IV needles, medications, bandages, tubing, narcotics, blankets, blood pressure cuffs and disinfectants.

Figure 2: Example of a Monitor/Defibrillator

Source: Photo from Zoll website

Fire Suppression, Logistics, Special Operations, and Training Divisions

The Fire Department's Suppression Division is primarily responsible for putting out fires, and as Figure 1 shows, they purchase wearable items used to protect firefighters from burns. According to the Fire Department's website, their mission is to "protect life, property, and the environment." The Suppression Division is comprised of fire engines, trucks, and rescue teams. As show in Figure 3 below, Fire Department vehicles house equipment and supplies used to put out fires and perform basic life support. Suppression spent just over $400,000 on firefighter protective equipment including jackets, pants, hats, gloves, boots, and maintenance in fiscal year 2013.

Figure 3: Example of Equipment and Supplies stored on Fire Department Vehicles

Source: Photo from Fire Department website

The Logistics Division provides agency-wide oversight in functional areas of station supplies and inventory management. The Communications Division is a unit under the Logistics Division and is responsible for managing and coordinating the department's communications needs including radios and cellular phones.

The Special Operations Division is a multi-faceted division responsible for Hazardous Materials, Domestic Preparedness, Technical Rescue and Urban Search and Rescue. The Special Operations Division's General Fund purchases included mostly small tools.

The Training Division promotes the improvement of public service through the facilitation of ongoing drills and exercises that reflect the real-life experiences encountered in the field by firefighting crews. The Training Division spends relatively little on equipment and supplies and receives most of its equipment from other Fire Department Divisions that have determined the equipment is no longer fit for active service, but can still be used in training simulations.

Many of these divisions work in concert with each other and are not independently functioning entities. Inventory items may be purchased by one division, but used by another division. For example, the defibrillators purchased by EMS are not only used on medic units, they are stored on fire trucks and fire engines for use by Fire Suppression firefighters should they need to perform life-support techniques.

The Fire Department does not have a central or overarching inventory system for managing all of their supplies and equipment. The Fire Department recognized the need for this type of management tool and included inventory management as part of their 2012-2017 Department Strategic Goals. Goal six articulates their intent to "establish a comprehensive logistics and asset management program to effectively and efficiently support the mission of the agency." As a result of this initiative, the Fire Department began looking for an inventory system that would suit their needs. They selected a software solution named Operative IQ and started piloting the system in 2013.

Operative IQ

EMS Technology Solutions, LLC developed Operative IQ as an "inventory, asset, purchasing, and fleet management software that provide services for Ambulance Services, Fire Departments, EMS Agencies, Universities, and Hospitals." Operative IQ offers several software modules with the capability to allow users to purchase supplies, record inventory counts, manage assets, and generate reports.

Initial costs to acquire and set up Operative IQ software were approximately $4,000. These costs include the Operative IQ software, licensing, and some initial training on how to use the software. Ongoing costs for Operative IQ include licensing fees estimated by the Fire Department at approximately $5,000 per year. Neither the initial setup expenses nor the ongoing cost estimates include the hourly labor costs associated with Fire Department employees managing the system. Existing Fire Department employees have been tasked with implementing and managing Operative IQ.

As the EMS Division has the most significant amount of supplies to manage and maintain, this division was chosen to pilot the system. The EMS Division is in the later stages of piloting Operative IQ and plans to share their experience with other Fire Department divisions that could potentially benefit from using this software to manage their inventory.

Emergency Medical Service Administration of Controlled Substances

Morphine (Morphine Sulfate) and Versed (Midazolam) are controlled substances purchased by the EMS Division, carried on all ambulances, and dispensed to patients as medical needs arise during service delivery. The use and possession of controlled substances is regulated by the Controlled Substance Act (CSA) of 1970, which is primarily enforced by the Drug Enforcement Administration (DEA.)

The CSA classifies drugs and controlled substances into five schedules based on their potential for abuse and the likelihood of dependence. Morphine is a

Schedule II drug with a high potential for abuse and a high likelihood of dependence. Versed is a Schedule IV controlled substance with a lower likelihood of abuse or dependence than Morphine. To provide context, the following table details additional information regarding controlled substances across the schedule spectrum:

Figure 4: Schedule of Controlled Substances

	Schedule				
Characteristics	**I**	**II**	**III**	**IV**	**V**
Accepted for medical use in the United States	No	Yes	Yes	Yes	Yes
Potential for Abuse	High	High	Less than Schedule I or II substances	Less than Schedule III substances	Less than Schedule IV substances
Likelihood of Dependence	High	High	Less than Schedule I or II substances	Less than Schedule III substances	Less than Schedule IV substances
Examples of Substances	Heroine LSD Ecstasy	Morphine Codeine OxyContin®	Vicodin®	Xanax® Versed®	Robitussin AC®
Substance used by the Fire Department for Advanced Life Support		**Morphine**		**Versed®**	

Source: Auditor generated based on the Controlled Substances Act

According to records from our medical supply vendor, the Fire Department purchased 850 vials of Morphine and 600 vials of Versed from January 2012 through December 2013. During this two year period, the total cost of these purchases was approximately $2,150. For the purposes of this audit, we refer to both Morphine and Versed as "narcotics." Narcotics is a generic term commonly used by EMS staff in reference to these controlled substances.

Objective, Scope and Methodology

We conducted a limited assessment of the newly acquired Operative IQ inventory system planned processes and did not perform detailed testing as the inventory system is still in a preliminary phase and has not been fully implemented. We interviewed staff responsible for implementing the new system, reviewed a small number of transactions, and observed supply deliveries to gain an understanding of how the inventory system operates. We felt this approach would be the most beneficial to the Fire Department as they move towards full implementation. For the purposes of this audit, we did not include Fire Apparatus (vehicles), Computer Equipment, Office Supplies, or Station Expenses in our expense calculations or in our review of inventory items.

We also evaluated the internal controls over controlled substances in the Emergency Medical Services Division (EMS.) Our scope included all Morphine and Versed records for 2012 and 2013. In conducting our review, we defined the types of controlled substances and conducted data mining for potential issues such as errors or omissions. In order to determine the completeness of the inventory system, we reviewed narcotics purchases to determine if they were appropriately recorded. To assess the accuracy of the system, we conducted a count of on hand inventory, verified the existence of items listed, and reviewed a sample of paramedic call reports to determine if the use of narcotics was appropriately recorded on the paramedic's log sheets.

Finding 1: The Fire Department should implement inventory management best practices to improve accountability and accuracy

To provide a framework and guidance on how to improve the accuracy and reliability of inventory, the Government Accountability Office (GAO) conducted a study of leading-edge companies to identify practices they use to achieve accurate and reliable inventory counts. As a result of this study, the GAO developed an *Executive Guide on Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property*. The GAO guidance states that "managing the acquisition, production, storage, and distribution of inventory is critical to controlling cost, operational efficiency, and mission readiness. Proper inventory accountability requires that detailed records of produced or acquired inventory be maintained." This guidance stresses the importance of implementing and maintaining a well-controlled inventory system in order to prevent 1) undetected theft and loss, 2) unexpected shortages of critical items, and 3) unnecessary purchases of items already on hand.

Inventory management best practices provide a framework for creating an effective and cost-efficient inventory system. A lack of accountability, segregation of duties, system access controls, or a reconciliation process over the inventory system could lead to fraud, waste, and abuse. In our opinion, an inventory system that lacks a process for maintaining accurate records, or detecting fraud or abuse, is not sufficient to properly manage inventory or aid in controlling costs. Implementing inventory control best practices will assist the Fire Department in more efficiently and effectively managing their vast inventory and provide the basis for detecting fraud, waste, or abuse of City property. We performed a high level review of the Fire Department's Operative IQ inventory processes and found that the department could benefit from incorporating inventory management best practices as they work towards full implementation of the inventory system.

GAO guidance states that "managing the acquisition, production, storage, and distribution of inventory is critical to controlling cost, operational efficiency, and mission readiness."

Best Practice #1: Assign responsibility for managing inventory and develop policies and procedures to provide clear and consistent direction

"Accountability" is defined as being held responsible or answerable for an action. According to the GAO, accountability should exist from the top of the organization to the lowest level and is established by developing performance goals and holding the appropriate level of personnel responsible for meeting those goals. Explicitly assigning responsibility over a process provides clear direction to employees on who will be held accountable if the process fails to

meet management's expectations. The GAO guidance suggests not only holding management responsible for the overall inventory process, but also pushing accountability to the floor level personnel performing the inventory procedures. This would include setting clear expectations regarding inventory record accuracy levels.

Policies and procedures demonstrate management's commitment to inventory management, become the basis for training, and help to inform employees of their responsibilities. The Fire Department is currently in the process of ironing out how their inventory system will function as it relates to the newly acquired Operative IQ software. When management has determined how the overall inventory system should work, written policies should be developed to clearly communicate management's expectations and provide clear guidance on how to complete all aspects of the inventory process. Policies should clearly define their purpose, who is responsible for carrying out key tasks, enough information to perform the tasks, and what methods of oversight management will employ to ensure compliance.

Policies and procedures demonstrate management's commitment to inventory management, become the basis for training, and help to inform employees of their responsibilities.

In order to establish strong inventory policies, it is imperative to develop appropriate segregation of duties. Segregation of duties is a commonly used and widely accepted internal control practice whereby duties are divided among different people. The purpose of dividing responsibilities is to prevent a single individual from adversely affecting the accuracy and integrity of the inventory count. The key areas that should be segregated are physical custody of assets, recording transactions, and approval of transactions. Ideally, staff performing any one of the above functions would not also have responsibilities in either of the other two functions. According to the GAO guidance, "in situations where segregation of duties is not practical or cost-effective, other controls should be employed to mitigate the recognized risk." The GAO suggests performing blind counts (meaning the person performing the count does not know how many items are supposed to be there) or having a count performed by two or more persons at the same time. Segregation of duties should be built into the process, or where this is not feasible, compensating controls should be put into place.

RECOMMENDATIONS

We recommend the Fire Department:

1. **Assign responsibility for managing inventory and develop policies to provide clear and consistent direction.**

Best Practice #2: Establish performance goals and conduct regular inventory counts to identify discrepancies and to ensure the inventory records remain accurate and complete

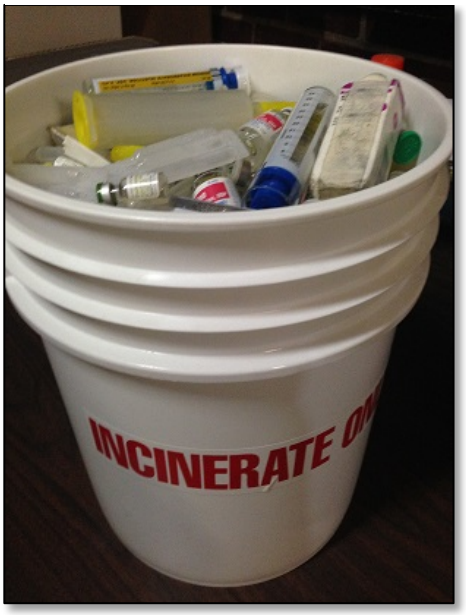
According to the GAO "performance goals establish targets for achieving management's objectives and contribute to the overall mission of the organization." The GAO found that inventory goals set by leading-edge companies were established by setting physical count record accuracy goals. Physical count accuracy goals are measured by the degree to which physical on hand balances agree with inventory records. The GAO suggests inventory accuracy goals should be set at 95 percent or higher.

The Fire Department has not yet set accuracy goals for inventory system records. When we reviewed the Operative IQ Inventory Change Log, we found large adjustments were being made to on hand inventory quantities. We found that when the number of items in the system was inconsistent with the number of items on hand, the on hand count was simply adjusted by warehouse staff without management or secondary approval. In some instances, no comments were provided to explain why the quantities were adjusted. For example, on April 23, 2014 the on hand quantity of Glucose Test Strips in the EMS Warehouse was adjusted down by 5,949 units with no explanation provided in the system as to why the change was made. When we inquired about this adjustment, EMS staff determined the change occurred to convert an individual unit count of glucose test strips to a box count[1]. In our opinion, lack of documentation to support why an inventory adjustment is made could lead to inaccurate balances and would make detection of theft or abuse more difficult. The Fire Department should develop a standardized procedure for recording inventory count adjustments, include a reason why the adjustment was made, and require management approval for these changes to verify they are appropriate. In addition, the root cause of an outage should be researched to determine if there is a systemic issue that caused the outage to occur.

We also found a lack of a tracking mechanism for expired supplies and medication. The Operative IQ system is currently set up only to track delivery of supplies to the fire stations and does not track actual usage of items. Therefore, discarded expired medication and supplies would simply be counted by the inventory system as "used" supplies. This would artificially inflate the number of items used by each station and defeat one of the purposes of the inventory system, which is to lower costs by only ordering what is needed and minimizing waste. Figure 5 is a photo of a bucket of expired medical supplies at the EMS Warehouse that have been collected over time and are awaiting disposal.

[1] Each glucose strip box contains 100 strips.

Figure 5: Expired Medical Supplies



Source: Photo taken by Auditor at EMS Warehouse

We recommend developing a mechanism to track expired supplies and medication in order to more accurately record which types of items are expiring and why. Tracking the number of expired supplies and medication will provide the department data on which types of supplies are expiring so that ordering of these items can be better managed in the future and minimize waste.

As stated previously, the Operative IQ system is currently set up to only track ordering and delivery of supplies and equipment to the fire stations and not actual usage. The Operative IQ system allows the administrator to set "par" levels for items, which helps to control the number of items on hand at a station. However, the system does not track when an item is removed from the station. The lack of a tracking mechanism for actual usage of items makes it more difficult to detect fraud, waste, or abuse of inventory assets as there is no record of where, when, or why the asset was used. The Fire Department should consider implementing a usage tracking process going forward to aid in managing actual usage of key supplies. A tracking mechanism with this capability would allow for the department to gain a more informed understanding of its actual inventory usage levels.

According to the GAO guidance, the process of counting physical inventory is an essential control for operational efficiency. Accurate inventory records are crucial to management's confidence in the inventory data used in decision-making. Two predominant approaches used by leading-edge companies to physically count inventory are cycle counting and wall to wall. Each approach offers distinct advantages and organizations may choose to use only one approach or a combination of approaches. The Fire Department should determine which approach works best for them and then develop a schedule of how often the items will be counted. The frequency of counts could be based on the item's dollar value, turnover, criticality to operations, or susceptibility of fraud. Once management has determine which method of counting to use and how frequently items will be counted, this process should be documented in a policy. In order to verify the accuracy of counts performed by staff, management could also implement random surprise counts whereby an item is

Accurate inventory records are crucial to management's confidence in the data and the ability to use inventory data for decision-making purposes.

selected and counted by management on a random basis. Counting inventory on a regular or ongoing basis will help to ensure accuracy of the inventory system records.

In our opinion, the importance of accuracy in an inventory system cannot be overstated. Inaccuracies in the inventory system records could lead to imprecise reports, which are used to make management decisions. Accurate data reports from the inventory system could potentially be a powerful tool used to determine future cost savings while a poorly managed system would undermine this goal.

RECOMMENDATIONS

We recommend the Fire Department:

2. **Establish performance goals to determine if the system is functioning properly.**
3. **Determine a schedule for regular and random inventory counts to ensure accuracy and identify outages.**
4. **Require supervisory approval of inventory count adjustments and document the cause of the variance.**
5. **Develop a mechanism to track discarded or expired medication.**
6. **Develop a process to track actual usage of supplies.**

Best Practice #3: Review system access levels to ensure only the appropriate parties have access and that segregation of duties is present within the system

Similar to the physical segregation of duties internal controls listed in Best Practice #1, the Operative IQ software system should also incorporate segregation of duties controls. System access should be limited to the smallest number of employees required to complete each task. When we conducted a high level review of access to the Operative IQ system, we found 11 "administrators" with the ability to make inventory count adjustments, 2 retired employees that still had system access, and 1 individual who was not an employee of the Fire Department. In the preliminary phase of this project, the EMS Division required several users with administrative access to assist in entering inventory items into the system. However, as this is no longer the case having 11 administrators exceeds the number necessary and should be reduced. Administrators have a high level of access to the system and limiting the number of administrators would help to prevent inappropriate changes. In

addition, the user access list should be reviewed on a regular basis to ensure former employees and inappropriate users do not have access to the system.

The Fire Department should work with the City's IT Department to implement system access best practices.

While we did not perform an in-depth analysis of the system access, these preliminary findings demonstrate the need for a more comprehensive review. The Fire Department should work with the City's IT Department to implement system access best practices, including the concept of "least privileges" whereby only the smallest number of individuals required to perform the task have access to the system. After the review is performed, Fire Department staff should also develop a formal process for approving new user access and a schedule to review system access on an on-going basis so that permission levels remain appropriate for each user.

RECOMMENDATIONS:

We recommend the Fire Department:

7. **Work with the IT Department to implement system access best practices, including the concept of "least privileges."**
8. **Develop a formal process for approving new user access and changes to access levels.**
9. **Perform ongoing reviews of system access.**

Best Practice #4: Develop an ongoing process to provide regular reports to management so they can monitor the overall system and ensure internal controls are present and functioning properly

According to the GAO, supervision is a key factor in determining that the objectives of the inventory system have been met. Benefits of an inventory management system like Operative IQ include the capability to generate inventory supply and cost analysis reports. The Operative IQ system comes with several premade reports, checklists, and the ability for management to design their own ad hoc reports. An example of a premade report is the Unit Supply Usage Details report, which shows the total dollar amount of supplies ordered by each fire station. Reports such as this could be useful in determining where unnecessary expenses are being incurred or in determining why one unit is spending more than another. When we spoke with Fire Department staff, we observed they were not aware of some key reports within Operative IQ and the benefits these reports could provide in helping them to manage and monitor inventory. However, it is important to note that the Fire Department is still in the early stages of implementing Operative IQ and will likely explore the

reporting functionality in greater detail as they move towards full implementation. Ultimately, by taking greater advantage of Operative IQ's built in reporting tools, management will be able to more efficiently and effectively manage inventory and determine where costs savings can be made.

In addition to cost savings reports, Operative IQ has the ability to run reports that would help to maintain accuracy and accountability. For example, the Inventory Change Log report shows the transaction history of manual changes to the count of an inventory item. A report of this type would allow management to review inventory count adjustments, verify that the changes are authorized, and monitor for explanations/documentation to support the adjustments. It is important to monitor manual changes to the number of items in the system to prevent fraud and to assist in performing a root cause analysis to find out why a manual adjustment was necessary and to prevent these discrepancies in the future.

Checklists can also be created through Operative IQ. For example, a daily checklist could be completed by each medic unit and fire apparatus team to ensure that a daily check is performed of all equipment on each vehicle. Currently this process is completed on paper checklists. The ability to track this process electronically could provide management with greater assurance the checks are being completed. The checklist would also increase accountability by letting management know who the last person was to review the item and verified its existence and condition. Currently, this functionality within Operative IQ is not being used by the Fire Department.

Operative IQ also has the ability to auto-generate delivery of these reports directly to users' email inboxes. This feature could be set up to provide daily, weekly, and monthly reporting as necessary to those users and to management who are responsible for inventory and for the software system. We contacted a Fire Department in Georgia that has been actively using the Operative IQ system for the last three years and learned they auto-generate several key reports on regular schedules. Using Operative IQ as an inventory management tool has allowed them to reduce their supply costs by approximately $57,000 per year. While this is just one example, and setting up automatic reporting alone will not guarantee a reduction in costs, it is a tool that management can use to help reach their inventory expense goals. Scheduled reporting will help management review the system on a regular basis to ensure the controls are functioning properly and inventory is being administered in accordance with management's expectations.

RECOMMENDATIONS:

We recommend the Fire Department:

10. **Determine which standard reports will be run by management on a regular basis to monitor and assess the overall system health, accuracy, and cost effectiveness.**
11. **Set up automatic delivery of key reports.**

Finding 2: Recordkeeping and monitoring of narcotics should be strengthened to safeguard against fraud, waste, and abuse

The use and possession of narcotics is regulated by the Controlled Substance Act (CSA) of 1970, which is primarily enforced by the Drug Enforcement Administration (DEA.) The 2013 *National Survey on Drug Use and Health* estimates that more than 6 million Americans are abusing prescription drugs. The survey states that abuse of controlled prescription drugs continues to be the nation's fastest growing drug problem. As a result, the DEA's *Practitioner's Manual* emphasizes that proper dispensing and administering of narcotics is "critical to patient's health and to safeguarding society against the diversion of controlled substances." While we did find that good processes have been designed to address these requirements, we found errors and gaps in the narcotics sheets and incomplete medic logs which call into question the effectiveness of these controls. Errors and gaps in the tracking logs could provide opportunities for diversion.

In order to address these concerns, the Sacramento City Fire Department could enhance its system of controls to ensure narcotics are handled properly by:

- Providing additional training on proper reconciliations;
- Improving the accuracy of the tracking spreadsheet;
- Ensuring medic log sheets contain dual signatures;
- Establishing clear segregation of duties; and
- Updating the Manual of Operations.

Having a well-controlled system is important to ensure compliance with the Controlled Substances Act and to prevent instances of theft or abuse.

While the dollar value of the City's narcotics are relatively low compared to many other items the Fire Department maintains, the potential for abuse is high. In our opinion, having a well-controlled system is important to ensure compliance with the requirements of the Controlled Substances Act and to prevent instances of theft or abuse.

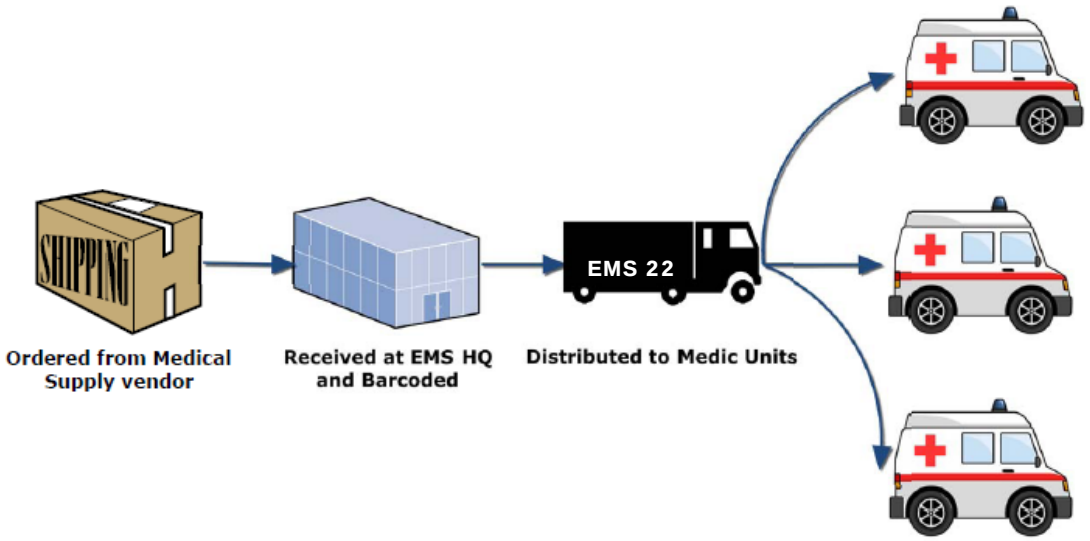
Narcotics Ordering and Distribution Controls

Proper inventory accountability requires that detailed records be maintained. The DEA's *Practitioner's Manual* states that "each practitioner must maintain inventories and records of controlled substances" and that "all records must be maintained and available for inspection for a minimum of two years." The Fire Department's Manual of Operations Section XI - Subject 51 "Controlled Medications Security and Procurement" provides direction to Fire Department employees on how to secure, track, and maintain records of narcotics.

The Fire Department may administer two kinds of narcotics to patients; Morphine (Morphine Sulfate) and Versed (Midazolam.) Purchases of Morphine

and Versed are made under the license of the County Medical Director and are processed by a medical supply vendor. As shown in Figure 6 below, orders are received at the EMS Headquarters, barcoded, recorded in an Excel spreadsheet, and distributed to a mobile supply unit called EMS 22. EMS 22 distributes the narcotics to the medic units (ambulances) as they are needed. Manual log sheets are used track the number of vials transferred from the EMS Headquarters (EMS HQ) to EMS 22 and from EMS 22 to the medic units. The log sheets are dually signed and maintained for two years. Medic units are limited to a maximum of six vials of Morphine and six vials of Versed at one time, and are kept in a secured cabinet.

Figure 6: Narcotics Ordering and Distribution Process



Source: Auditor generated

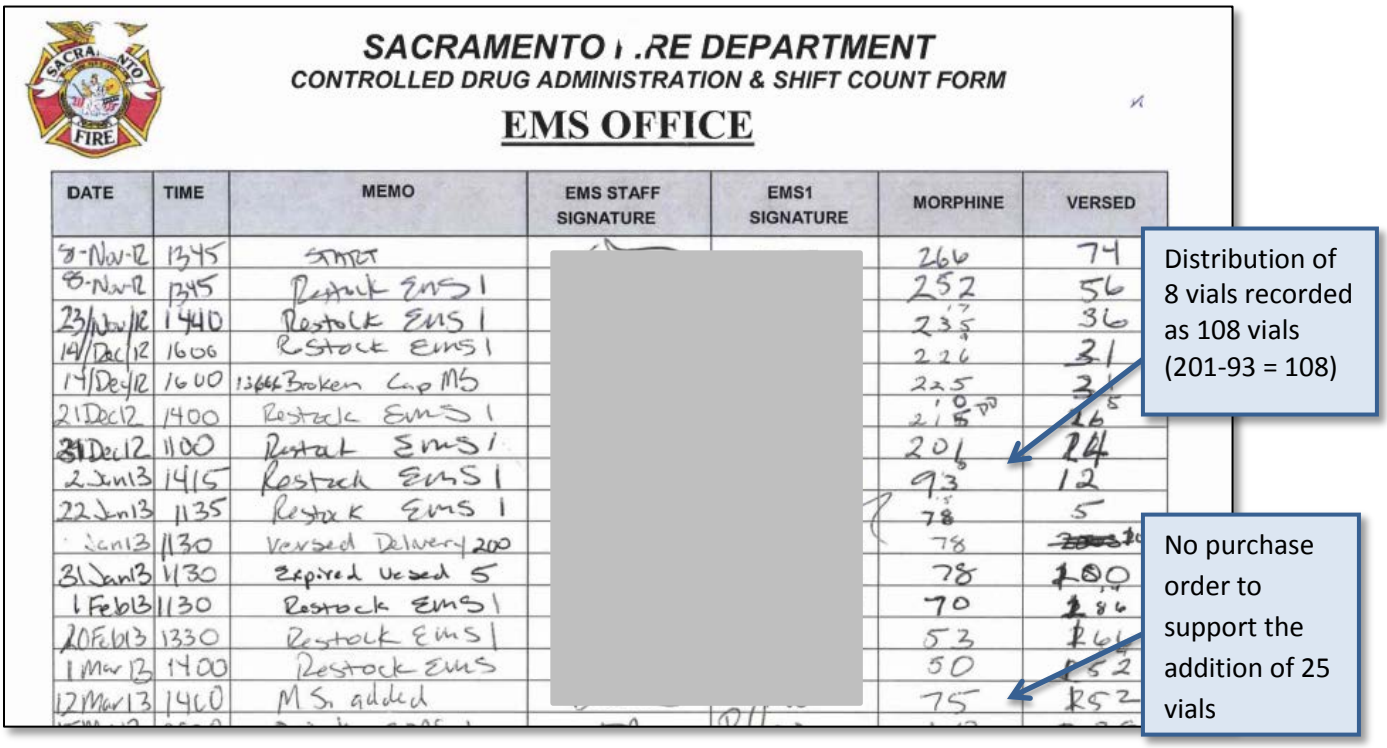
Empty vials follow this same process in reverse; empty vials are picked up from the medical units by EMS 22, and then delivered to EMS HQ so they can be recorded as used vials in the previously mentioned Excel spreadsheet. In our opinion, the processes in place do provide a good basis for establishing controls over the City's narcotics supply. However, it should be noted that controls are only effective if implemented properly. If controls are not executed properly; control weaknesses will emerge and expose the City to unnecessary risk.

Providing additional training on proper reconciliations

Despite the department's processes noted above, we discovered incorrect entries in the logs which raised concerns. We reviewed Morphine transactions for calendar year 2013 and found instances where the receipt and distribution

of Morphine was not properly recorded on the tracking logs. For example, Figure 7 below shows the number of Morphine vials on hand at EMS Headquarters on December 31, 2012 was 201. The next entry shows 93 vials on hand, which would suggest that 108 vials (i.e. 201 - 93 = 108) were distributed on January 2, 2013. A distribution of 108 vials would be highly unusual as the *total* number of vials in the field at one time is typically limited to 110. To confirm the accuracy of this transaction, we compared the headquarters records to the records of the distribution vehicle EMS22. On the date in question, EMS22 recorded receipt of only 8 vials. Therefore, it appears EMS staff only distributed 8 vials, but incorrectly calculated the number distributed as 108. As a result of this error, the tracking log at EMS HQ did not appear to accurately reflect the number of vials on hand and was short by 100 vials of Morphine.

Figure 7: Examples of incorrect log entries



SACRAMENTO FIRE DEPARTMENT
CONTROLLED DRUG ADMINISTRATION & SHIFT COUNT FORM
EMS OFFICE

DATE	TIME	MEMO	EMS STAFF SIGNATURE	EMS1 SIGNATURE	MORPHINE	VERSED
8-Nov-12	1345	START	[redacted]	[redacted]	266	74
8-Nov-12	1345	Restock EMS 1	[redacted]	[redacted]	252	56
23/Nov/12	1440	Restock EMS 1	[redacted]	[redacted]	235	36
14/Dec/12	1606	Restock EMS 1	[redacted]	[redacted]	226	31
14/Dec/12	1600	1366 Broken Cap M5	[redacted]	[redacted]	225	31
21 Dec 12	1400	Restock EMS 1	[redacted]	[redacted]	215	26
31 Dec 12	1100	Restock EMS 1	[redacted]	[redacted]	201	24
2 Jan 13	1415	Restock EMS 1	[redacted]	[redacted]	93	12
22 Jan 13	1135	Restock EMS 1	[redacted]	[redacted]	78	5
Jan 13	1130	Versed Delivery 200	[redacted]	[redacted]	78	[illegible]
31 Jan 13	1130	Expired Used 5	[redacted]	[redacted]	78	100
1 Feb 13	1130	Restock EMS 1	[redacted]	[redacted]	70	86
20 Feb 13	1330	Restock EMS 1	[redacted]	[redacted]	53	61
1 Mar 13	1400	Restock EMS	[redacted]	[redacted]	50	52
12 Mar 13	1460	M S. added	[redacted]	[redacted]	75	52

Distribution of 8 vials recorded as 108 vials (201-93 = 108)

No purchase order to support the addition of 25 vials

SACRAMENTO FIRE DEPARTMENT
CONTROLLED DRUG ADMINISTRATION & SHIFT COUNT FORM
EMS OFFICE

DATE	TIME	MEMO	EMS STAFF SIGNATURE	EMS1 SIGNATURE	MORPHINE	VER
1-May-13	1000	Restock EMS1 Davis	[redacted]		15	1
12-May13	1100	Restock EMS1	[redacted]		1	09
13 May13	1100	75 vials MS added	[redacted]		76	0
20 May13	1445	Restock EMS1	[redacted]		61	
28 May13	1030	Restock EMS1	[redacted]		56	74
14 June13	1030	Restock EMS1	[redacted]		45	56
23 JN13	0945	Restock EMS1	[redacted]		38	36

No purchase order to support the addition of 75 vials

Source: Controlled substances logs from EMS Headquarters

Despite having a process that requires dual signatures to confirm accurate log entries, this error went unnoticed for several months. The presence of errors indicates that neither person is properly reviewing the entries to ensure accuracy, which defeats the primary purpose of attesting to the information.

Further review of the logs shows the addition of 25 vials of Morphine in March of 2013 and 75 vials in May of 2013. However, these additions did not have corresponding purchase orders from the medical supply vendor to support these entries. When we spoke with the EMS Division regarding the lack of support for these entries, they speculated the addition of 25 vials in March and 75 vials in May were not actual purchases but were adjustments to offset the previous error made in January. As a result, the log sheet and actual on hand count of Morphine at the EMS HQ was not in agreement for over 4 months (January 2013 through May 2013). Reasons for adjusting entries to the on hand balance should be documented and approved by management. We found no such documentation to support these entries. The lack of explanation or approval of adjusting entries could provide opportunities for theft or diversion.

In addition to the review of Morphine records, we also performed a physical count of narcotics at the EMS HQ and found Versed was out of balance with the log sheet by four vials. In an attempt to locate the error, we reviewed the Versed records maintained by EMS HQ. It appears that in August 2013 the receipt of 150 vials to the stock of Versed was added to a previous total instead of the current total, which caused the count to be out of balance from that point forward. The error went undetected until our review. While EMS's records were sufficient for locating the recordkeeping error and correcting the outage, the presence of errors suggests a failure in the control and a lack of management oversight that could provide opportunities for diversion. Further,

the failure to promptly identify the errors noted above is concerning and is indicative of a need for additional training on the purpose of dual signatures and the importance of maintaining an accurate count. Given the issue noted above, changes to how this control is implemented are needed immediately.

In order to address the recordkeeping issues identified above, management should implement random surprise counts of the narcotics on hand at the EMS HQ. Random surprise counts are a common technique used by management to provide assurance that controls are functioning as intended. This would help to ensure the accuracy of log sheets and provides an opportunity for management to address any training or out of balance concerns in a timely manner.

RECOMMENDATIONS

We recommend the Fire Department:

12. **Train staff on the proper use of a tracking sheet and the significance of dual signatures.**
13. **Perform regular reconciliations of on hand narcotics inventories.**

Improving the accuracy of the tracking spreadsheet

The Fire Department's Manual of Operations Section XI - Subject 51 states "Federal law requires that the possession of controlled substances must be tracked from the manufacturer to the patient receiving the substance." In order to comply with this requirement, the Fire Department uses a tracking spreadsheet and assigns a bar code number to each vial. This spreadsheet documents when a vial was distributed to the medic unit and the date the empty vial was returned to EMS HQ. However, when we reviewed the tracking spreadsheet, we found control weaknesses that raised concerns about the accuracy and reliability of the spreadsheet. For example, when we reviewed EMS's tracking spreadsheet, we found anomalies indicating that all vials may not be accounted for. Based on our analysis, we identified ten Morphine vials distributed to the field in 2012 with no additional entries in the spreadsheet to indicate what happened to the vials after they were distributed. In accordance with the Fire Department's Manual of Operations, we would expect to find information showing which patients these vials were used on and the date the empty vials were returned to EMS HQ. We shared the barcode numbers of these vials with EMS staff and they determined the empty vials were not returned to EMS HQ, but their use was documented in the patient care system indicating the morphine was used on patients.

We also found gaps in the sequencing of bar code numbers, incomplete data, and duplicate entries for some vial numbers. Gaps in the sequence of bar codes could provide an opportunity for theft because missing vials would be difficult to detect. Eliminating gaps in the sequence would help to ensure a complete and accurate inventory of narcotics. We also found that some vial records had incomplete data. For example, we identified vials that had been recorded as being returned as empty, but lacked the required patient care report number. Our review identified five vials with duplicate entries, which would indicate they were not properly recorded in the tracking sheet. The presence of duplicate entries and gaps in the data may provide opportunities for diversion.

Reconciliations of outstanding vials of Morphine and Versed should be completed regularly to ensure none are lost, stolen, or diverted. In addition, regular reviews of the tracking spreadsheet should be completed to ensure all vials are properly accounted for.

RECOMMENDATIONS

We recommend the Fire Department:

14. **Perform reconciliations of the narcotics tracking sheet to ensure they are all accounted for from delivery to disposal.**

Ensuring medic log sheets contain dual signatures

Medic log sheets are used to track the use of narcotics on patients. Each time a narcotic is administered to a patient, the use is tracked on the medic's log sheet. The County of Sacramento Office of Emergency Medical Services protocols states that "all wastage of controlled substances must be witnessed by a second person that documents it in accordance with a provider-developed procedure." Wastage of partial vials is documented and dually signed by a witness to verify the unused narcotics were disposed of properly. Generally, this dual signature process is performed by the second paramedic or EMT working on the ambulance. We sampled 32 instances of Morphine use by medic units. Although dual signatures are only required during wastage of controlled substances, we found dual signatures were generally obtained even in instances when Morphine was not wasted. However, we did identify two instances where a secondary signature was not present, and therefore was not dually witnessed by another individual. The lack of a dual witness could create an opportunity for diversion. We also noticed the Medic log sheets were not being reviewed by a supervisor before they were filed. While this is not specifically required by the County protocols, medic log sheets would benefit from supervisory review

before they are filed to ensure the process is being followed and the use of narcotics has been dually witnessed.

RECOMMENDATIONS

We recommend the Fire Department:

15. **Develop a process to review Medic log sheets before they are filed to ensure use of narcotics is witnessed by two individuals.**

Lack of segregation of duties

Segregation of duties is a commonly used and widely accepted internal control practice whereby duties are divided among different people. The purpose of dividing responsibilities is to prevent a single individual from adversely affecting the accuracy and integrity of the inventory count. The key areas that should be segregated are physical custody of assets, recording transactions, and approval of transactions. Ideally, staff performing any one of the above functions would not also have responsibilities in either of the other two functions. When we reviewed the narcotics receipt and distribution process used by the EMS Division, we found the same person is responsible for receiving, recording, and distributing narcotics.

According to the GAO guidance, "in situations where segregation of duties is not practical or cost-effective, other controls should be employed to mitigate the recognized risk." The GAO suggests performing blind counts (meaning the person performing the count does not know how many items are supposed to be there) or having a count performed by two or more persons at the same time. As previously stated, we found that physical counts were not being performed. In our opinion, the receiving and distribution processes should either be segregated among multiple persons, or random surprise counts should be performed and records reviewed by management, to mitigate the risk involved with a lack of segregation of duties.

RECOMMENDATIONS

We recommend the Fire Department:

16. **Increase segregation of duties over narcotics processes or implement compensating controls to mitigate the risk of having one employee perform multiple key tasks.**
17. **Perform random surprise counts of narcotics on hand.**

The Manual of Operations needs to be updated

The Manual of Operations is the Fire Department's collection of policies that provide guidance to Fire Department employees on the department's expectations and direction on how to perform key tasks. The Manual of Operations Section XI – Subject 51 *Controlled Medication Security and Procurement* was last revised on January 2, 2007 and the Section XI- Subject 16 *Daily Vehicle Inspection (Medic Units)* is dated January 1, 1996. Procedural changes have occurred within the Fire Department since these policies were last revised and the policies should be updated to reflect those changes. Policy changes made as a result of the Operative IQ inventory system should also be updated. A regular review of established policies will help to ensure consistency and reinforce compliance.

RECOMMENDATIONS

We recommend the Fire Department:

18. **Update the Manual of Operations to reflect operational changes to the administration of narcotics.**

Finding 3: A random drug and alcohol testing program could be implemented to further enhance controls over narcotics

Firefighters have access to highly addictive narcotics during the administration of their duties. As a result, the potential for abuse of these medications exists. While we found that good process have been designed for administering narcotics, we also found weaknesses that call into question the effectiveness of those controls. Implementing the recommendations in Finding 2 will help to strengthen the controls; however, to further safeguard against diversion the Fire Department could also consider implementing random drug testing as an additional tool that would serve to deter and detect inappropriate use of controlled substances.

The United States Department of Transportation (DOT) Office of Drug and Alcohol Policy and Compliance states that the best tool employers have for deterring drug and alcohol use in the work place is Random Drug Testing. According to the DOT, the benefits of random drug testing include:

- Saving lives and preventing injuries;
- Helping employers identify workers with substance abuse issues and facilitate their treatment;
- Allowing employees to easily say no to illegal drug use. "No, thanks. They drug test at work";
- Reducing employer liability; and
- It is a fair way of testing.

The U.S. Department of Transportation states that the best tool employers have for deterring drug and alcohol use in the workplace is Random Drug Testing.

Although we did not find evidence of narcotics abuse during our review, random drug testing is a control that could potentially be put into place as a further enhancement to the recommendations in Finding 2.

Random drug and alcohol testing programs have already been implemented by other Fire Departments

According to HireRight, an employment screening agency, "because some health care workers have access to highly addictive medications, organizations are adding ongoing random drug/alcohol tests to their screening programs to protect patient and employee safety. This is especially useful to deploy for workers who are distributing medications. Ongoing drug screening helps to mitigate many risks of a workplace incident that could lead to a claim or bad press. Having a random drug testing program in place is essential to reduce ongoing risk. Since drug free workplace programs are predicated on deterrence, without a random drug screening program, an active drug abuser need only

"pass" his/her pre-employment screen to resume their drug use without "fear" of subsequent employment testing."

The City of Sacramento currently conducts pre-employment, reasonable suspicion, and post-accident drug screening of firefighters, but does not perform random drug testing. A 2006 survey by the Journal of Emergency Medical Services, which offers insight to EMS managers on industry trends, reported that 81.8% of respondents (which included fire departments, private, third-service governmental, and hospital-based organizations) require pre-employment drug screening. Post-accident drug testing was used by 78.5% of respondents and 43.1% conduct periodic random drug screening to ensure a drug-free workplace. San Francisco, San Diego, Phoenix, Houston, Chicago, Boston, and New York City Fire Departments all have random drug testing programs in place.[2]

Random drug testing policies implemented by other Fire Departments listed the public's safety among their purposes for a random drug testing program. For example, the Phoenix Fire Department's *Alcohol and Substance Abuse Education, Awareness, Treatment & Prevention Policy* states that the goal of their alcohol and drug testing program is to "establish a work environment that is totally free of the harmful effects of drugs and the misuse of alcohol. It is our intent to protect the safety of our members and the public we serve, and prevent accidents that may involve drugs or alcohol." *The Drug Detection and Deterrence* policy[3] for the City of Houston states that positions which "if performed with inattentiveness, errors in judgment, or diminished coordination, dexterity, or composure may result in mistakes that could present a real and/or imminent threat to the personal health and safety of the employee, co-workers, and/or the public" are considered safety impact positions and are therefore subject to random drug testing.

In addition to increased public safety as a driving force behind implementing a random drug testing program, we also found that drug testing programs were implemented to help identify firefighters with drug or alcohol abuse problems so they could get into treatment programs. According to the San Francisco Fire Department, they have been performing random testing for approximately 10 years. When we spoke with the department's Investigative Services Bureau, they informed us that a goal of their random drug testing program is to identify firefighters with drug or alcohol abuse problems so the firefighters can get the help they need through the use of a rehabilitation program and that input from

[2] The City of Phoenix recently suspended random drug testing while they determine how to address medical marijuana usage.
[3] The City of Houston considers firefighters safety impact employees.

the work group is vital to having a successful program. The Investigative Services Bureau considers their program to be valuable, relatively inexpensive, and generally well-received among Fire Department employees.

The cost of a random drug testing program is relatively low

The DOT's Office of Drug and Alcohol Policy and Compliance (ODAPC) sets national standards on how to conduct drug testing for DOT's safety-sensitive employees and may serve as a useful example of how the Sacramento City Fire Department could design a random drug testing program. As the figure below demonstrates, the DOT maintains industry standards on how many employees are randomly tested within DOT agencies.

Figure 8: 2014 Department of Transportation Random Testing Rates

DOT Agency	2014 Random Drug Testing Rate	2014 Random Alcohol Testing Rate
Federal Motor Carrier Safety Administration	50%	10%
Federal Aviation Administration	25%	10%
Federal Railroad Administration	25%	10%
Federal Transit Administration	25%	10%
Pipeline & Hazardous Materials Safety Administration	25%	N/A
United States Coast Guard	25%	N/A

Source: United States Department of Transportation website http://www.dot.gov/odapc/random-testing-rates

If we apply a random drug testing rate of 25% to 550 Sacramento City firefighters, approximately 138 employees would be tested annually. At a cost of approximately $12 per oral swab test for 138 tests per year, we estimate the annual cost for oral swab kits would be approximately $1,650. The cost of also including alcohol testing would require the purchase of a Breathalyzer for approximately $800. Replacement mouthpieces for the Breathalyzer are $0.30 per test. Therefore, it would add an upfront cost of $800 and a $40 annual cost to include alcohol testing as part of a detection program. The oral swab kit and Breathalyzer are used as examples because they are considered the least invasive methods of drug and alcohol testing when compared to blood or urine tests.

In regards to administrative costs, the City already has a post-accident testing program in place and would likely be able to use the existing structure to incorporate a random testing program. In our opinion, the cost of implementing a random drug testing program is negligible in comparison to the potential liability to the City of a firefighter operating under the influence of drugs or alcohol.

While we did not find evidence of narcotics abuse during our review, a random drug testing program could be put into place as an additional tool to strengthen the control weaknesses identified in Finding 2. Implementing a random drug program could serve as an effective mechanism for detecting and deterring illegal drug use.

RECOMMENDATION

We recommend the Fire Department:

19. **Consider implementing a random drug and alcohol testing program.**

City of SACRAMENTO
Fire Department

WALT WHITE
Fire Chief

5770 Freeport Blvd., Suite 200
Sacramento, CA 95822-3516

Ph: (916) 808-1300
Fax: (916) 808-1629
www.sacfire.org

M E M O R A N D U M

TO: JORGE OSEGUERA, CITY AUDITOR

FROM: WALT WHITE, FIRE CHIEF

DATE: JULY 25, 2014

RE: REPORT #2014-02: AUDIT OF THE FIRE DEPARTMENT INVENTORY SYSTEM AND NARCOTICS

This communication is in response to the City Auditor's Report #2014-02, Audit of the Fire Department Inventory System and Narcotics

1. The Fire Department acknowledges receipt and concurs with the findings and recommendations from the City Auditor's report.
2. Corrective actions are being taken. Draft policy is being developed and internal operational procedures are being updated to ensure that all recommendations by the City Auditor's Office are met.
3. I would like to take this opportunity to thank the City Auditor and staff for their recommendations and for their efforts in identifying areas for improvement.
4. Below please find the Fire Department's response to the 19 audit recommendations identified in the report.

Audit Recommendations and Fire Department Responses

1. **Assign responsibility for managing inventory and develop policies to provide clear and consistent direction.**

   Response and Action Plan Strategy:
   Draft policies for managing inventory levels at the fire stations and the main warehouse have been created and are in the review process. These policies primarily cover medical supplies and EMS equipment inventories. They communicate management's expectations and provide clear guidance on how to complete all aspects of the inventory process. These policies assign responsibility of managing inventory levels at the fire stations to the front line supervisors (Captains) and place the responsibility of warehouse management and acquisition on the Emergency Medical Services (EMS) Battalion Chief and warehouse supervisor. As the system is fully implemented and other divisions of the fire Department are brought onboard, more policies will be developed to clearly define their purposes, who is responsible for carrying out key tasks, provide enough information to perform the tasks, and outline what methods of oversight management will be employed to ensure compliance.

2. **Establish Performance goals and conduct regular inventory counts to identify discrepancies and to ensure the inventory records remain accurate and complete**

   Response and Action Plan Strategy:
   The EMS Division Battalion Chief and warehouse supervisor will conduct monthly audits of warehouse supplies by category to ensure accuracy and identify potential discrepancies with inventory counts and/or supply unit of measure identifiers (e.g., January airway supplies, February stabilization and cleaning supplies). Inventory counts will be matched with system cycle counts. The goal is to establish a level of accuracy of between 95% and 98%.

3. **Determine a schedule for regular and random inventory counts to ensure accuracy and identify outages.**

   Response and Action Plan Strategy:
   Draft policies outlining the process for monthly inventory audits at the fire stations and within the warehouse have been developed and are in the review process. These policies will be implemented and adjusted as needed to ensure regular monthly audits are conducted. Random audits of the station and warehouse supplies have already begun to ensure accuracy and identify outages.

4. **Require supervisory approval of inventory count adjustments and document the cause of the variance.**

   Response and Action Plan Strategy:
   System user count adjustment access has been modified and restricted. Inventory count adjustments can now only be entered with supervisory approval, and supporting documentation must be provided for the cause of the variance.

5. **Develop a mechanism to track discarded or expired medication.**

   Response and Action Plan Strategy:
   A supply room within the electronic system has been created to track expired medications that are sent back to the warehouse. This allows for a mechanism to track the type, quantity and cost of the expired medication being discarded. Policy is also being developed that will outline the process for returning expired medication back to the warehouse to be discarded.

6. **Develop a process to track actual usage of supplies.**

   Response and Action Plan Strategy:
   The department has the ability to track the usage of medical supplies within its electronic Patient Care Reporting (ePCR) system. Unfortunately, at this time the inventory management system and ePCR system do not communicate; however, the ePCR system is used to track and establish warehouse PAR levels based on the frequency of use. Because of the way some supplies are packaged and used (e.g. Band-Aid, Aspirin) it would be difficult to track every medical supply used. To meet this recommendation, the EMS Division is in the process of establishing a list and mechanism within its ePCR system to track as many supplies used as possible. This information will then be compared with supply orders and PAR levels to ensure the accuracy of the system and identify any misuse.

7. **Work with the IT Department to implement system access best Work with the IT Department to implement system access best practices, including the concept of "least privileges."**

   Response and Action Plan Strategy:
   Least privileges have been implemented; however, the Department will work with IT to evaluate current access levels and adhere to their recommendations for additional access best practices.

8. **Develop a formal process for approving new user access and changes to access levels.**

   Response and Action Plan Strategy:
   System access levels have been reviewed and updated, ensuring access levels are appropriate for individual responsibilities and supervisory levels within the organization.

9. **Perform ongoing reviews of system access.**

   Response and Action Plan Strategy:
   Policy will be developed and a process put in place to audit the system for appropriate access levels on an ongoing basis. In conjunction with the department's Human Resources Division, a notification policy will be developed providing a process for system administrators to be notified of new hires that must be added to the system as well as individuals that have separated from the organization.

10. **Determine which standard reports will be run by management on a regular basis to monitor and assess the overall system health, accuracy, and cost effectiveness.**

Response and Action Plan Strategy:
The following key reports have been identified by the EMS Division and will be run bi-monthly:

- Narcotic Inventory transfer (Morphine)
- Narcotic Inventory transfer (Versed)
- Supplies Received
- Supplies Ordered
- Supplies Used
- Expiring Medications
- Dollar loss reports for expired medications (Quarterly)

11. **Set up automatic delivery of key reports.**

Response and Action Plan Strategy:
The Operative IQ system administrator will work with SFD's division managers and the vendor to create customized reports that are auto-generated and delivered directly to users' email inboxes. This feature will be set up to provide daily, weekly, and monthly reports based on each division manager's needs. This scheduled reporting will help management review the system on a regular basis to ensure controls are functioning properly.

12. **Train staff on the proper use of a tracking sheet and the significance of dual signatures.**

Response and Action Plan Strategy:
As a result of the findings of this audit, EMS staff received remedial training on the proper use of the narcotics tracking sheet, and the significance of dual signatures was reinforced. A new tracking process of barcode scanning for each individual vial of narcotics was also implemented, in addition to consistent use of the tracking sheet. This dual process will quickly identify any discrepancies, reducing the possibility of errors.

13. **Perform regular reconciliations of on-hand narcotics inventories.**

Response and Action Plan Strategy:
The EMS division has implemented a monthly, random reconciliation and hand count of narcotic inventories. The audit is conducted by the EMS Battalion Chief and Captain assigned to the division and the findings reported to the EMS Assistant Chief. In addition to the monthly reconciliation, a random quarterly audit will be requested and witnessed by the Assistant Chief of EMS.

14. **Perform reconciliations of the narcotics tracking sheet to ensure they are all accounted for from delivery to disposal.**

Response and Action Plan Strategy:
The EMS division has developed a written policy and procedure to ensure that the narcotics tracking sheet is reconciled by no later than the **15th** day of each calendar month. A new, electronic narcotic tracking system developed by Operative IQ (our inventory control and asset management vendor)

has recently been released and is slated to be tested by the EMS Division. If testing is successful, this fully electronic tracking system will be used for narcotic tracking moving forward, thus replacing the current tracking sheet.

15. Develop a process to review Medic log sheets before they are filed to ensure use of narcotics is witnessed by two individuals.

Response and Action Plan Strategy:
The Fire Departments EMS 22 Captains are responsible for ensuring the completion of these forms during transference or restocking of narcotics and during monthly vehicle inspections. Each restock of narcotics by EMS 22 Captains must be accompanied by a Patient Care Report (PCR) showing the use of the narcotic, along with the administering paramedic's signature. The department will conduct re-education with all of its qualified EMS 22 Captains and Firefighter Paramedics to ensure this is occurring. In addition to providing retraining, the Fire Department will update EMS Manual of Operations, Section X1, Subject 51, to ensure it represents current operational procedures and is in alignment with the auditor's recommendations.

16. Increase segregation of duties over narcotics processes or implement compensating controls to mitigate the risk of having one employee perform multiple key tasks.

Response and Action Plan Strategy:
This recommendation has already been implemented, segregating the duties of ordering, receiving and barcode labeling between three individuals. In addition to segregation of duties, tasks other than ordering now require the presence of more than one person (verifying the count on an order received, distribution, bar-coding and reconciliation). While already being implemented, the internal written procedure still needs to be completed.

17. Perform random surprise counts of narcotics on hand.

Response and Action Plan Strategy:
A random monthly count is currently being conducted which would identify any discrepancies during any given month. Please see Response 13.

18. Update the Manual of Operations to reflect operational changes to the administration of narcotics.

Response and Action Plan Strategy:
The Fire Departments currently has a practice that requires the on duty EMS 22 Captains to ensure the completion of narcotic logs during transference or restocking of narcotics and during monthly vehicle inspections. Each restock of narcotics by EMS 22 Captains must be accompanied by a Patient Care Report (PCR) showing the use of the narcotic, along with the administering.

19. Consider implementing a random drug and alcohol testing program.

Response and Action Plan Strategy:
The department agrees with this recommendation. The department is fully committed to public safety.

Random drug and alcohol testing is best practice when evidence of drug abuse is present. No evidence of drug abuse was found during the auditor's review nor is the department aware of any such issues by department personnel. This fact is not in dispute.

However the department agrees to evaluate the effectiveness of existing policy that ensures the members of the department are fully fit for duty. Furthermore the department agrees to have dialogue with labor regarding the strengthening of current policy with random drug and alcohol testing. Although the department cannot pre-commit to policy revision or adoption since this constitutes a meet and confer agreement between management and labor. The department maintains its commitment to a high-performance workplace where labor and management jointly engage in problem solving. I firmly believe that discussions between labor and management will result in a responsible outcome that is in the best interests of the public, the department and its members.