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City Internal Auditor

**REPORT TO THE CITY
COUNCIL
BY THE CITY INTERNAL
AUDITOR**

**AUDIT OF THE FIRE DEPARTMENT –
EMS FUNCTIONS**

**INTERNAL AUDIT REPORT
(IAR) 070118-04**

October 30, 2018

Report Highlights	Page(s)
• Lack of current contract between EMS and Third Party Billing Processor.	7
• EMS Response time was below the suggested industry standard and staging time was not used in the data calculation.	8



The Council
City of Shreveport

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October 30, 2018

Councilman Jerry Bowman, Jr.
Chairman, Shreveport City Council

Dear Councilman Bowman, Jr.:

Subject: IAR 070118-04 – Audit of the Fire Department – EMS Functions

Attached please find the report mentioned above. Management comments are included in the report.

Sincerely,

Leanis L. Steward, CPA, CIA
City Internal Auditor

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EXECUTIVE SUMMARY
AUDIT OF THE FIRE DEPARTMENT – EMS FUNCTIONS
INTERNAL AUDIT REPORT (IAR) 070118-04

Performance Audit:

Fire Department – EMS Functions

Why We Did This Audit

We have completed an audit of the Fire Department – EMS Functions. This audit was conducted as one of our regularly scheduled audits included in the annual Audit Plan developed by the City Internal Auditor. Our objective was to determine if the Fire Department was operating efficiently and effectively in accordance with City standards and procedures as it relates to EMS functions.

What We Recommended

To improve controls and operational efficiency and effectiveness we recommend the Fire Department:

- Have a current contract between EMS and third party billing collector Insight Billing.
- Improve the response time for EMS calls and include the staging time in the data calculation.
- Establish formal processes and procedures for the operation of Fire EMS Supplies Warehouse.

What We Found

Shreveport Fire Department – EMS Division is responsible for planning, development, implementation, and clinical oversight of all Basic Life Support and Advanced Life Support medical care for the City of Shreveport. It also manages the Continuous Quality Improvement (CQI) and Performance Management (PM) section for the Department.

Generally, we found that operational and administrative controls within the organization were adequate. However, we found areas that the Fire Department could improve to enhance controls and operational efficiency and effectiveness as it relates to EMS functions.

We identified the following issues:

- **No current contract between EMS and third party billing contractor Insight Billing.**
- **Response time for EMS calls needs improvement and staging time was not used.**
- **No formal procedure and protocols for the warehouse operations and lack of inventory accuracy.**

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Introduction

Shreveport Fire Department (SFD) – EMS Division is responsible for planning, development, implementation, and clinical oversight of all Basic Life Support and Advanced Life Support medical care for the City of Shreveport. It also manages the Continuous Quality Improvement (CQI) and Performance Management (PM) section for the Department.

The Fire Department Operations Division currently utilizes 10 paramedic ALS units. Two EMS supervisors provide continuous field oversight and respond to all cardiac arrests and major incidents. EMS incidents account for 72% of the total Fire Department 911 requests. The EMS operations for all city special events are planned and staffed through the EMS Division.

The Fire Department also provides EMS (Emergency Medical Services) LIFECARE, a membership program that is offered by the SFD to offset the high cost of transportation by absorbing unpaid balances by insurance companies. LIFECARE protects members from the potentially high cost of emergency ambulance services and provides members with security and peace of mind. SFD provides 24 hour ambulance service for anyone who calls 911 needing help regardless of membership status.

Fire Department – EMS Division Administrative Offices and Central Fire Station:



The objectives of this audit were to determine the following:

- Whether resources are employed efficiently and effectively.
- Compliance with laws, regulations, contract provisions, policies and procedures.
- Whether internal control over operations is effective.



Recommendation Evaluation Risk Criteria

This report contains three findings with three recommendations. The chart below summarizes our evaluation of risk for the recommendations outlined in the report. Each recommendation was assessed a high, medium, or low risk level based on a qualitative assessment of exposure and/or corrective action priority.

Risk Levels	Recommendations
<p style="text-align: center;">High</p> <p>Represents a significant level of risk exposure to city assets, public safety, or achievement of objectives or mission. Corrective action should have the highest priority.</p>	<p>None</p>
<p style="text-align: center;">Medium</p> <p>Represents a moderate level of risk exposure to the city from extensive operating inefficiencies or high-level non-compliance issues. Corrective action should occur expeditiously.</p>	<ul style="list-style-type: none"> ➤ SFD need to have an up to date contract with third party billing contractor Insight Billing. (Finding: Current Contract Agreement) ➤ SFD to improve the average of response time for EMS calls and to include staging time in the data calculation. (Finding: EMS Response Time for Service Calls)
<p style="text-align: center;">Low</p> <p>Represents a minimal level of risk exposure to the city from inefficiencies or low-level non-compliance issues. Corrective action should occur as appropriate.</p>	<ul style="list-style-type: none"> ➤ EMS establish formal procedures and protocols for the warehouse and to improve the accuracy of inventory. (Finding: Inventory Accuracy at Fire EMS Supplies Warehouse)



Scope and Methodology

The scope of this audit includes Fire Department – EMS Division operating activities and financial reporting and performance occurring during the period January 2013 – May 2018. To answer our objectives, we reviewed relevant internal controls and developed audit procedures that included but were not limited to the following:

- Interviewing EMS management and staff members and Insight Billing management
- Reviewing compliance with established or stated policies and procedures
- Reviewing EMS budget and financial reports
- Reviewing City Ordinances and contract agreement

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, conclusions, and recommendations based on our audit objectives.





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FINDINGS AND RECOMMENDATIONS



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Objective: Compliance with laws, regulations, contract provisions, policies and procedures.

Current Contract Agreement

An up to date contract or extension between the City and its third party billing processor (formerly known as Aeromedical Collection Service (ACS) and currently as Insight Billing) should be in place to ensure all requirements and stipulations are agreed and followed by all parties.

Fire Department does have an extension contract proposal agreement and a formal signed contract with the billing processor Insight Billing. However, the current agreement extension expired at May 2018.

Recommendation 1: Shreveport Fire Department should ensure that a current up to date formal contract should be available with Insight Billing.

Management Response:

Agreed that an up-to-date contract (with collection goals considered) should be in place with a billing company (the contract is currently being reviewed).

Due Date: Less Than 6 Months





Objective: Whether resources are employed efficiently and effectively.

EMS Response Time for Service Calls

Quick and prompt medical service response time is critical to ensure the safety and well-being of patients. Shreveport Fire EMS response time for the last few years (from 2012 to 2015) did not meet the suggested industry standard of 90% of incident response times should be less than 5 minutes for BLS (Basic Life Support), but did meet the 90% standard of less than 9 minutes for ALS (Advance Life Support). Slow response time could have adverse publicity and could increase legal liabilities for the City.

Our review of the overall response times also indicated errors in the response times calculated because staging time was not always indicated or used (Staging time denotes that SFD personnel have arrived on scene but are unable to provide care for reasons such as, waiting for the police to secure the area or incorrect apartment number provided by the caller). Also, there was no further review or analysis from EMS management of those incidents with long response time.

Recommendation 2: Shreveport Fire Department management should ensure all responses to EMS calls should meet the industry standard for all EMS calls. Management should find better data collection methods and analyze all response times, especially the ones with longer than the national standards response time.

Management Response:

The ONLY solution to this problem is moving forward with the Geographic Information System Emergency Services Response Capabilities Analysis that was currently completed in March of 2017. According to the analysis, a minimum of two additional Medic Units along with funding for 20 additional personnel to man equipment is needed to meet the demands of the call volume. The city cannot continue to have an increase in run volumes while not increasing manpower and equipment and expect response times to remain compliant with standards. The Shreveport Fire Department has had an increase of over 10,000 runs per year since the last additional unit was placed in service.

In response to the data collection methods currently used, I agree a better system should be utilized. However, until funding for an updated system is obtained and the department moves under a 'one report' reporting system, this issue will continue to exist.

Due Date:



Objective: Whether internal control over operations is effective.

Inventory Accuracy at Fire EMS Supplies Warehouse

Fire Department – EMS Supplies Warehouse:



There are different types of inventory for EMS at the warehouse; from supplies such as gloves, towels, and bags to medical equipment such as needles, blood pressure cuffs, and ring cutters.

An accurate count of inventory is necessary to run the operation of any warehouse or inventory entity. Proper monitoring of the effectiveness of the annual inventory count and the inventory procedures would enable management to ensure items are in stock and ready for the next material requirement. When warehouse personnel know exactly what inventory they have and where it is stored, they could retrieve it promptly and fill requests of materials efficiently. To improve efficiency and effectiveness of operation, any warehouse should have formal standard procedures for its daily operation and all employees should follow all procedures.



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While EMS Administration has a tight control with its medicines and drugs (regular and narcotics) with locked cabinets and standardized procedures, SFD EMS Supplies Warehouse does not have formal procedures of operation for its daily operation. Some of the inventory requests were not filled out by EMS personnel completely and accurately. The inventory accuracy of supplies was not correct; some of the items were off by double digits. We visited the SFD EMS Supplies Warehouse on several occasions and some of the items we audited were not correct (on hand quantity versus quantity from inventory record). For one inspection count, we randomly selected 42 different items to check for inventory accuracy and 35 of them were off.

Recommendation 3: EMS management should develop and implement formal comprehensive policies and procedures for its warehouse operation which address key operations and day-to-day activities in the warehouse. The new operation manual could be used as a reference tool for correct handling of day-to-day transactions. Management should provide more training to improve the process of daily operation and to ensure employees comply with existing policies and procedures.

The new computerized inventory program should enable SFD EMS Supplies Warehouse management to track and update all inventories in a timely manner. Only authorized personnel should change part quantities in the program and warehouse users should change their passwords periodically in compliance with City of Shreveport IT policy of changing password every 60 days.

Management Response:

A comprehensive policies and procedures manual is currently being created to address key issues. We should be completed with this task by early 2019.

In order to correct some of the EMS Supply inventory discrepancies, members of our current supply vendor are scheduled to come in to retrain our warehouse personnel on our inventory system "Operative IQ". A system test will also be performed to determine if the system is functioning properly. This should be completed by years end 2018.

Due Date: Less Than 6 Months



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Prepared by:

A handwritten signature in blue ink that reads "Brian Nguyen". The signature is written in a cursive style and is underlined with a single horizontal line.

Brian Nguyen
Staff Auditor

Approved by:

A handwritten signature in blue ink that reads "Leanis L. Steward". The signature is written in a cursive style.

Leanis L. Steward, CPA, CIA
City Internal Auditor

bn:dw

- c: City Council
- Clerk of Council
- Mayor
- Chief Administrative Officer
- Carr Riggs and Ingram
- Chief of Fire Department
- Chief of Fire Department – EMS Division