

**OFFICE OF THE CITY CONTROLLER**



**FLEET MANAGEMENT DEPARTMENT  
AUTO PARTS INVENTORY MANAGEMENT  
PERFORMANCE AUDIT**

**Chris B. Brown, City Controller**

**Courtney E. Smith, City Auditor**

**Report No. 2018-03**



**OFFICE OF THE CITY CONTROLLER  
CITY OF HOUSTON  
TEXAS**

**CHRIS B. BROWN**

July 27, 2017

The Honorable Sylvester Turner, Mayor  
City of Houston, Texas

**SUBJECT: Report #2018-03 Fleet Management Department (FMD)  
Auto Parts Inventory Management Performance Audit**

Mayor Turner:

The Office of the City Controller's Audit Division contracted the professional services of Bridgepoint Consulting, LLC to complete a performance audit of the Fleet Management Department's (FMD) auto parts inventory management process. FMD gained full responsibility for auto parts inventory management in April 2016 following the end of the City of Houston contract with Genuine Auto Parts.

The primary audit objectives were to review and test activities, transactions and processes in place during the current fiscal year to gain an understanding of the parts inventory management process, including the sub-processes of parts purchasing, receiving, fulfillment, work order charges, returns and warehouse management to:

- Determine the existence of policies, procedures and guidelines for parts inventory management;
- Assess the level of compliance with existing policies, procedures and/or guidelines;
- Determine the existence and effectiveness of systems or other technology tools;
- Determine the effectiveness of internal controls; and
- Provide practical recommendations to improve the efficiency and effectiveness of part inventory management.

The engagement scope included operations and transactions occurring from September 31, 2016 through March 31, 2017.

FMD's Parts Division has performed admirably in its commitment and dedication to fleet management and maintenance services by staffing and training warehouse teams, implementing an inventory management system, acquiring adequate spare parts to support ongoing maintenance, designing and establishing processes and controls. These activities were done with very little advance notice.

In performing our work, we noted opportunities to improve internal controls including the following:

- Segregation of duties in the warehouse;
- Review of systems access in the inventory system;
- Enhancement of policies and procedures;
- Physical inventory accuracy; and
- Monitoring and physical access controls.



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CHRIS B. BROWN

We appreciate the management and staff of FMD for their time and effort, responsiveness, and proactive attention of detail during the course of the audit.

Respectfully submitted,

Chris B. Brown  
City Controller

cc: Victor Ayres, Director, Fleet Management Department  
City Council Members  
Marvalette Hunter, Chief of Staff, Mayor's Office  
Kelly Dowe, Chief Business Officer, Mayor's Office  
Harry Hayes, Chief Operating Officer, Mayor's Office  
WeiYao Chang, Assistant Director, Fleet Management Department  
Shannan Nobles, Chief Deputy City Controller, Office of the City Controller  
Courtney Smith, City Auditor, Office of the City Controller



July 25, 2017

Chris B. Brown, City Controller  
Office of the City Controller  
City of Houston  
901 Bagby  
Houston, TX 77002

Re: Fleet Management Department Parts Inventory Performance Audit

Dear Mr. Brown:

Bridgepoint Consulting LLC (Bridgepoint) has completed the City of Houston's Fleet Management Department (FMD) Parts Inventory Performance Audit as outlined in our engagement letter dated February 2, 2017 under Contract Number 4600013954, approved by City Council Ordinance Number 2016-559.

The audit objective was to assess with reasonable, but not absolute assurance, the effectiveness and efficiency of policies, procedures and internal controls over FMD auto parts inventory system and processes, including orders, receipts, warehousing, requisition and fulfillment, returns and performance monitoring.

The audit scope covered FMD operations and transactions during the period September 31, 2016 through March 31, 2017.

Errors or fraud may occur due to inherent limitations in controls. In addition, conclusions from this audit may differ in future periods due to changes in or failure to improve systems, processes or controls.

The attached report is intended for the use of FMD and the Office of the City Controller, and is not intended to be used for any other purpose.

Thank you for the opportunity to perform this audit and the cooperation received from FMD and your office.

Sincerely,

A handwritten signature in blue ink that reads "Manuel Azuara".

Manuel Azuara  
*Principal*

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# Fleet Management Department Parts Inventory Performance Audit

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## EXECUTIVE SUMMARY

### INTRODUCTION

The Audit Division (AD) of the City Controller's Office engaged Bridgepoint Consulting, LLC to conduct an independent performance audit of the City of Houston Fleet Management Department's (FMD) parts inventory function. Bridgepoint Consulting subcontracted with Billiken Consulting as a Minority and Women-owned Business Enterprise (MWBE) to participate in conducting the audit. The audit considered the effectiveness of internal controls related to inventory warehousing, parts purchasing and receiving, fulfillment, work orders charges, part returns and performance monitoring with City of Houston (City) purchasing policies and FMD Parts Division inventory accounting policies. In addition, the efficiency and effectiveness of procedures in place to ensure all parts are recorded, safeguarded and accurately charged to vehicle and equipment maintenance work orders as used was also considered during the audit. The audit was included in the City Controller's fiscal year (FY) 2017 Audit Plan as a direct result of the AD's Enterprise Risk Assessment.

### BACKGROUND

In 2011, the Fleet Management Department was created through a consolidation of all City fleet operations into one central department. Also in 2011, the City through a contract with NAPA outsourced the responsibility for stocking and operating the City's maintenance facility warehouses. The contract began in January 2011 and was not renewed effective April 17, 2016.

On April 17, 2016, FMD assumed the management of the City's fleet maintenance and established the Parts Division, which assumed full responsibility for all 25 warehouses. FMD was challenged to accomplish the following with no previously established transition plan:

- Organize, staff and train parts warehouse teams to support the maintenance facilities;
- Implement the M5 inventory management technology system ("M5 system") that had been previously used by the City, but had not been used during the NAPA contract period;
- Acquire, stock and organize adequate spare parts to support ongoing maintenance, since no parts transitioned from NAPA to the City with the contract cancellation;
- Design and establish processes including policies and procedures to account for the movement of inventory from purchase through issuance; and
- Design and implement controls to help safeguard assets, manage parts vendors, and provide inventory management oversight.

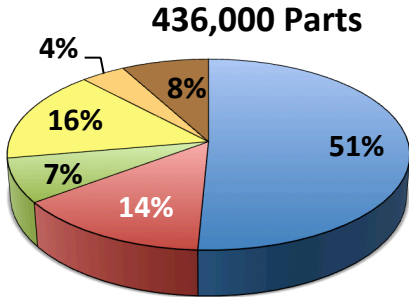
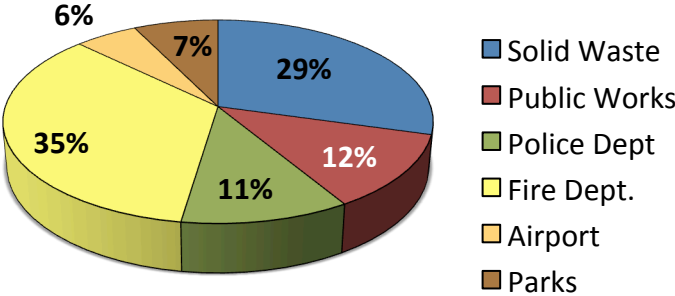
Currently, FMD has over 350 employees, approximately 50 of which are in the Parts Division, and 25 maintenance and warehouse facilities across the City of Houston's 640 square miles. The Department provides fleet services to customer departments city-wide with a combined municipal fleet of approximately 12,000 units. FMD is responsible for asset management, maintenance and repairs, fueling services, vehicle acquisitions and dispositions, alternative fuel vehicle planning and implementation, and the City-wide shared motor pool program, known as FleetShare. FMD's mission is to "provide high quality, cost effective and sustainable fleet management and maintenance services to our customer

# Fleet Management Department Parts Inventory Performance Audit

departments.” *Government Fleet* magazine and the American Public Works Association (APWA) ranked the City of Houston number six (#6) in the nation in Leading Fleets for 2016.

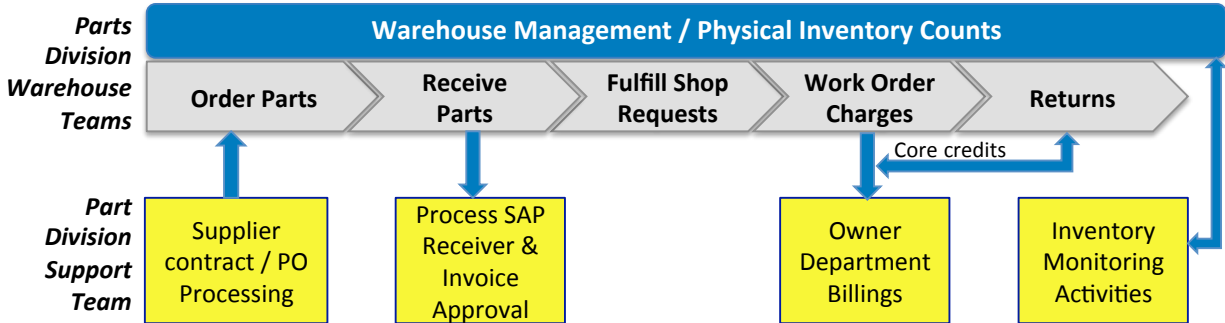
The 25 warehouses and maintenance facilities provide the parts to maintain a mix of vehicles, heavy equipment, and other maintenance equipment such as mowers across six (6) customer departments. As of March 31, 2017, FMD’s warehouses held a total \$4.5 million in parts inventory that was comprised of approximately 436,000 different parts. This includes some high dollar specialty parts (e.g., Fire Department engines and Solid Waste heavy equipment). Inventory turnover based on annualized spend was 4.1 times.

**Inventory Value of \$4,545,000**



On an annualized basis using work order data from September 1, 2016 through February 28, 2017, the FMD Parts Division’s 47 warehouse employees processed charges for approximately 60,000 work orders comprised of over 105,000 tasks requiring parts.

The following depicts an overview of the components considered in the audit and how they impact the overall internal control structure.



## AUDIT SCOPE AND OBJECTIVES

Our audit objectives were to review and test activities, transactions and processes in place during the current fiscal year to gain an understanding of the parts inventory management process, including the sub-processes of parts purchasing, receiving, fulfillment, work order charges, returns, and warehouse management to:

# Fleet Management Department Parts Inventory Performance Audit

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- Determine the existence of policies, procedures and guidelines for parts inventory management;
- Assess the level of compliance with existing policies, procedures and/or guidelines;
- Determine the existence and effectiveness of systems or other technology tools;
- Determine the effectiveness of internal controls; and
- Provide practical recommendations to improve the efficiency and effectiveness of parts inventory management.

The engagement scope included operations and transactions occurring September 31, 2016 through March 31, 2017.

## PROCEDURES PERFORMED

In order to obtain sufficient evidence to achieve engagement objectives and support our conclusions, we performed the following steps for a sample of parts warehouses within FMD:

- Reviewed FMD's departmental policies and guidelines related to inventory transactions;
- Interviewed FMD parts personnel involved in warehouse activities, purchasing, and inventory management oversight to document an understanding of processes, systems and controls;
- Obtained inventory transactions and quantity details to conduct data analysis and select samples for testing;
- Selected eight warehouses for testing physical access, safety awareness and warehouse management;
- Assessed the existence and accuracy of recorded inventory within the M5 system by performing test counts and reconciling 25 parts at each of the eight selected warehouses (200 parts in total);
- Observed parts receiving and issuance during the site testing at the eight warehouses;
- Obtained a download of parts purchases, including both purchase orders (PO) or purchase cards (P-card) from the SAP system and tested a sample of PO purchases to parts received in the M5 system;
- Obtained and reviewed the supporting documentation for parts procured and received for a sample of P-card transactions selected from the SAP data;
- Obtained and reviewed the supporting documentation for the fulfillment and processing of work order charges for parts within the M5 system to supporting parts requisitions issued by maintenance shop personnel;
- Obtained available documentation to test a sample of parts returns and whether the returns were recorded in the M5 system and vendor credits were received; and
- Obtained and reviewed a sample of vendor contracts and vendor monitoring reports.



# Fleet Management Department Parts Inventory Performance Audit

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## AUDIT METHODOLOGY

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards and in conformance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to obtain sufficient and 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 scope of our work did not constitute an evaluation of the overall internal control structure of FMD or the Parts Division. Management is responsible for establishing and maintaining a system of internal controls to ensure that City assets are safeguarded, financial activity is accurately reported and reliable, and management and employees are in compliance with laws, regulations, and policies and procedures. The objectives are to provide management with reasonable, but not absolute assurance that the controls are in place and effective.

## CONCLUSIONS

We believe that we have obtained sufficient and appropriate evidence to adequately support the conclusions provided below as required by professional auditing standards. Each Conclusion is aligned with the related Audit Objective for consistency and reference. For detailed findings, recommendations, management responses, comments and assessment of responses, see the “Detailed Findings, Recommendations, Management Responses, and Assessment of Responses” section of this report.

The Audit Division noted that FMD management has already begun correcting and/or implementing controls that address many of the audit recommendations as noted in their Management Responses.

### CONCLUSION 1 – (AUDIT OBJECTIVE #1)

Determine the existence of policies, procedures and guidelines for parts inventory management

- Based on the results of the procedures performed, FMD’s Parts Division policies and procedures provide the foundation to deploy consistent processes across all warehouses and better communication between functions. Through our analysis, we identified opportunities to enhance policies and procedures over system user access, parts receiving, fulfillment, work order charges, returns, P-card support, and warehouse management. (See Findings #1, #2, #3 and #4)

### CONCLUSION 2 – (AUDIT OBJECTIVE #2)

Assess the level of compliance with existing policies, procedures and/or guidelines

- Based on the results of the procedures performed, we noted inconsistencies in practices and opportunities to improve the Parts Division’s compliance with current procedures and guidelines over parts purchasing, receiving, work order fulfillment, work order charges, and returns. (See Findings #2, #3 and #4)

# Fleet Management Department Parts Inventory Performance Audit

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## CONCLUSION 3 – (AUDIT OBJECTIVE #3)

Determine the existence and effectiveness of systems or other technology tools

- Based on the results of the procedures performed, we noted the M5 system has adequate functionality to meet FMD’s needs. However, improvements to both the system controls and utilization of the functionality were identified. FMD recently hired an IT professional, who has developed an action plan to improve user controls and further assist the department in improving the control effectiveness and use of the M5 system. (See Finding #1)

## CONCLUSION 4 – (AUDIT OBJECTIVE #4)

Determine the effectiveness of internal controls

- Based on the results of the procedures performed, we determined that although FMD’s Parts Division management works to mitigate control gaps through active supervision and communication; there are deficiencies in the internal control effectiveness due partially to monitoring controls, as designed, not being fully implemented. (See Findings #1, #2, #3, #4 and #5)

## CONCLUSION 5 – (AUDIT OBJECTIVE #5)

Provide practical recommendations to improve the efficiency and effectiveness of parts inventory management

- Based on the results of the procedures performed, we have identified areas where technology could be implemented to enhance controls and provide overall process efficiency and effectiveness related to parts inventory management and operations. (See Findings #3, #5 and #6)

## ACKNOWLEDGEMENT AND SIGNATURES

The Audit Team would like to thank the management and staff of FMD for their responsiveness, cooperation, time and efforts, as well as their proactive approach to risk management throughout the course of the engagement.



Manuel Azuara  
Principal

# Fleet Management Department Parts Inventory Performance Audit

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## DETAILED FINDINGS, RECOMMENDATIONS, MANAGEMENT RESPONSES, AND ASSESSMENT OF RESPONSES

### **FINDING #1 – DUTIES AND TECHNOLOGY ACCESS ARE NOT PROPERLY SEGREGATED (RISK RATING = HIGH)**

#### **BACKGROUND:**

As previously indicated, current warehouse operations were rapidly established on April 17, 2016, with the expiration of an outsourced contract. As such, FMD assumed full responsibility for all 25 warehouses, electing to reinstate the warehouse parts inventory tracking function within the M5 system that had been previously used by the City, but had not been used during the outsourced contract period. FMD rapidly organized the Parts Division by recruiting and training parts personnel to support its maintenance facilities with the objective of ensuring the City's fleet remained operational and safely maintained for the owner departments.

Parts Division management has worked to establish policies and procedures through the use of the M5 system, and recently was able to hire an M5 system manager, who has established a plan to improve user access controls through the system.

#### **FINDING:**

The following risks were identified based on an analysis of current parts personnel duties:

##### Segregation of Duties Issues

- Parts personnel purchase, receive, issue, return and/or charge-out all warehouse parts. The combination of these duties result in the potential risk that unauthorized parts could be acquired, removed from inventory and charged out to work orders improperly.

##### Technology Access Issues

- The M5 system has over 200 unique user roles, and extra parts menus and data (e.g., NAPA parts no longer in use). This increases the risk of inappropriate access and errors.
- Parts personnel have access within the M5 system to modify inventory quantities, which increases the risk that parts could be adjusted incorrectly or removed from inventory and adjusted without adequate documentation and an audit trail.
- Parts personnel can transfer parts to another warehouse in the M5 system without the receiving warehouse positively confirming receipt of the parts, which could result in part quantity errors that are only identified by a physical count.

#### **RECOMMENDATION:**

We support management's plan to improve user access controls through the M5 system, which should include:

- Ensuring all former employees no longer have access;
- Confirming the specific access rights of current personnel in the Parts Division and FMD;
- Implementing a consistent user access approval process;

## Fleet Management Department Parts Inventory Performance Audit

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- Restricting the ability to make any inventory adjustment in the M5 system to non-warehouse personnel; and
- Removal of unused parts menus and data.

To further enhance controls through the segregation of duties over parts inventory, we recommend parts purchases not be processed by the same person responsible for accepting and processing parts received. If this level of segregation of duties is not practical or not possible in all locations, we recommend enhancing the monitoring over purchasing volumes and work order charge-outs.

### **FMD'S MANAGEMENT RESPONSE:**

This is currently being addressed by the department. The current M5 system manager joined the department in January 2017. One of many priorities has been to review and refresh the access to and administrative roles in the M5 system. Controls are being updated and implemented as appropriate to ensure parts system access and accountability are suitable for the operation.

**RESPONSIBLE PARTY:** WeiYao Chang, FMD Assistant Director

**ESTIMATED DATE OF COMPLETION:** 12/31/2018

**ASSESSMENT OF RESPONSE:** Management's response and corrective actions are sufficient.

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## **FINDING #2 – INADEQUATE INTERNAL CONTROL OF RETURNED PARTS (RISK RATING = HIGH)**

### **BACKGROUND:**

Parts returns occur regularly in fleet maintenance operations due to the following:

- Change in repair diagnosis, such that the requested parts are not needed for the repair;
- Wrong part ordered for the specific make and model of unit being repaired;
- An exchange of one part (return) for another part;
- Defective parts returned for warranty credits, repair or refund; and
- Parts cores returned for credit or refund of the core deposit.

The M5 system has functionality to track cores and core deposits and record part returns to maintain inventory accuracy. A core deposit is designed to encourage return of used, rebuildable parts. The core deposit is charged upon the purchase of a new part and credited as a partial trade in for a new or rebuilt part or refunded when the core is returned.

### **FINDING:**

Based on our inquiries, process walkthroughs and detail testing of a sample of return transactions at eight warehouses, we determined that each warehouse has space designated for returns with new parts kept separate from cores or defective parts. Parts are usually returned to a vendor at the time a part delivery is made with returns documented on a ticket detailing the parts picked up by the vendor's driver. However, the tickets tested were often incomplete, not sequentially used and were not consistently processed as a part return in the M5 system.

The results of our parts return testing further showed that procedures and supporting documentation maintained was inconsistent among returns and warehouses, including the timing for when a part return is recorded. For parts purchased within a short time of the return, often neither the receiver for the part purchased nor its return were transactions in the M5 system.

In addition, the tracking of core deposits, core returns and related charges and credits to work orders was also inconsistent among warehouses. Overall, we noted process gaps exist related to recording returns and monitoring of outstanding vendor credits that result in risks that all vendor credits and/or refunds for returned parts could remain outstanding and uncollected or that cores could go missing without an adequate audit trail to detect the loss.

### **RECOMMENDATION:**

We recommend the Parts Division take the following actions:

1. Develop a better understanding of the core deposit tracking and return processing capability within the M5 system.
2. Establish written policies and procedures to address:

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- a. Handling of returns (P-card purchases, core deposits, defective parts or warranties, exchanges, new parts and parts returned to inventory) to ensure a standard process is developed, communicated, and performed for each type of part return transaction.
  - b. Vendor credits related to returns to ensure they are received and deposited or applied against invoice payments.
3. Consider utilizing virtual warehouses for returned parts and cores to enable monitoring of all returns and receipt of vendor credits. This would provide the ability to track receivables, which are cleared once the vendor credit is received.

### **FMD'S MANAGEMENT RESPONSE:**

Policies and Procedures are being reviewed and modified for consistency and completeness. Training will be provided to parts personnel to ensure understanding, compliance and proper documentation. The suggestion for a virtual warehouse for credits, returns et al. will be considered for inclusion in the operation.

**RESPONSIBLE PARTY:** WeiYao Chang, FMD Assistant Director

**ESTIMATED DATE OF COMPLETION:** 12/31/2018

**ASSESSMENT OF RESPONSE:** Management's response and corrective actions are sufficient.

# Fleet Management Department Parts Inventory Performance Audit

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## **FINDING #3 – PHYSICAL INVENTORY ACCURACY CONTROLS (RISK RATING = MEDIUM)**

### **BACKGROUND:**

The Parts Division established policies and procedures that require a complete annual physical warehouse inventory with test counts verified by parts personnel independent of that location's operations. To further improve inventory accuracy, all warehouses are organized and labeled and all parts are to be assigned specific warehouse locations in the M5 system. Further, the Parts Division is in the process of implementing cycle counting to help ensure on-going accuracy and timely identification of differences to facilitate research to correct missing transactions.

### **FINDING:**

We performed detail testing of 200 parts for inventory accuracy at eight different warehouses (25 parts tested at each of the eight warehouses) and identified the following circumstances that were not accurately captured in the M5 system:

- The M5 inventory system had incomplete or inaccurate locations for 16 parts;
- Inaccurate inventory quantities for 26 parts resulting from untimely processing or data entry errors;
- Inaccurate part descriptions for three (3) parts;
- Batteries donated by the State of Texas were not received into the M5 system;
- Twelve (12) parts had unreconciled variances between physical counts and the M5 system, the cause of which could not be determined;
- Incorrect annual physical inventory count adjustments resulted in three (3) accuracy issues; and
- Two (2) parts in the warehouse had been incorrectly charged to work orders, so they were not in the M5 system.

During our testing, we observed that quantity differences could be researched using mechanic notes and analysis of M5 system work order data to identify unrecorded part issuances. However, such research to resolve test differences was very time consuming and inefficient. Also, it was noted that the donated batteries were tracked manually.

### **RECOMMENDATION:**

We support management's plan to have all warehouses conduct cycle counts that would at a minimum result in a complete count of each warehouse on a monthly basis. Frequent cycle counts should help to identify quantity differences and/or missing transactions more quickly and eliminate research over long periods of time improving efficiencies in identifying inventory discrepancies.

We also support the plans to complete annual physical inventories of all warehouses prior to July 31, 2017 with test counting by parts personnel independent of that warehouse's operation. However, we recommend the procedures for cycle and annual physical counts be enhanced to address donated inventory items, maintaining accuracy of part descriptions and locations within the M5 system and enhancing test count verifications to ensure adjustments are required.

## Fleet Management Department Parts Inventory Performance Audit

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In addition, bar code scanning technology should be considered to enhance the efficiency and accuracy of physical counts (cycle and annual).

**FMD's MANAGEMENT RESPONSE:**

Management concurs with the recommendations. However, the use of bar code scanning technology will require further research as to available technology and funding availability.

**RESPONSIBLE PARTY:** WeiYao Chang, FMD Assistant Director

**ESTIMATED DATE OF COMPLETION:** 12/31/2018

**ASSESSMENT OF RESPONSE:** Management's response and corrective actions are sufficient.



# Fleet Management Department Parts Inventory Performance Audit

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## **FINDING #4 – INCOMPLETE POLICY & PROCEDURES (RISK RATING = MEDIUM)**

### **BACKGROUND:**

The Parts Division and its operations were formed April 17, 2016. Parts Division management was charged with establishing policies and procedures while overcoming numerous operational challenges related to start-up operations including supporting the maintenance shops with no beginning parts inventory, and rapidly hiring and training new personnel. As such, policies, procedures and training were initially focused on the utilization of the M5 system to provide management with a consistent method for tracking, reporting and accounting for parts used by the maintenance shop.

### **FINDING:**

Based on our inquiries, process walkthroughs and detail testing of parts warehouse transactions for eight locations, we noted that detailed policies and procedures should be developed over the activities of receiving, fulfillment, processing of work order charges, and M5 system user access approvals to further mature and standardize processes among all 25 warehouses.

### **RECOMMENDATION:**

While basic policies and procedures exist, the following policy and procedural enhancements or development are recommended:

#### ***Receiving*** – enhance current procedures to clarify:

- When receivers for parts should be entered into the M5 system and what date should be used when processing that receiver;
- Criteria for leaving a parts warehouse unmanned to pick up parts from a vendor;
- The process for “receiving” commercial repair charges to confirm the vendor satisfactorily completed the outsourced repair; and
- What, how and where supporting documentation (deliver tickets, count sheets) should be retained and approval signed-off.

#### ***Fulfillment*** – enhance procedures to evidence internal control over parts movement:

- Task within the work order should be opened in the M5 system for each specific repair prior to the shop representative / mechanic requesting parts for that task;
- Parts issued should be documented on the applicable work order form for that task;
- Mechanics should sign and date the work order form confirming they have received the parts documented; and
- All parts returned by the mechanic back to the warehouse should be documented and received back into inventory by a parts employee upon receipt or prior to end of shift.

#### ***Work Order Charges*** – enhance procedures to improve completeness and accuracy of parts and commercial repair charges to work orders:

- Establish procedures to mitigate time delays in the charging of parts issued to a work order;
- Require completed work order forms that document the issuance of parts be retained by scanning the form into the M5 system as an attachment to the work order;
- Develop reports that identify tasks with missing part(s) charges;
- Consider utilizing bar code technology to scan parts issued to a mechanic and simultaneously charge that part to the appropriate task in the work order; and

## Fleet Management Department Parts Inventory Performance Audit

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- Develop procedures for issuing core credits to the work order when the mechanic delivers the core to the parts warehouse for its return to the vendor.

**Purchase Card (P-card) Support** – enhance documentation procedures and provide training to improve accountability and compliance with stated policies:

- Require transaction supporting documentation being scanned and attached by FMD users into their J.P. Morgan P-card system accounts to include the signed charge slip, the supporting invoice, the part charge out to the appropriate work order or verification that the part was purchased for inventory stock and evidence of the M5 system receiver processed;
- Train personnel on the proper use of the P-card including submission and retention of applicable supporting documentation required by City policy; and
- Require that documentation is scanned and retained as required by City policy to enable audit and verification.

**M5 System Access** – develop and implement formal policy for user access approvals.

Other enhancements to policies and procedures have already been addressed in this report in findings #1 and #2 related to physical inventory controls and controls over returned parts.

### **FMD'S MANAGEMENT RESPONSE:**

As the department continues its' review and modification of policies and procedures, it will ascertain its ability and the feasibility to implement the recommendations.

**RESPONSIBLE PARTY:** WeiYao Chang, FMD Assistant Director

**ESTIMATED DATE OF COMPLETION:** 12/31/2018

**ASSESSMENT OF RESPONSE:** Management's response and corrective actions are sufficient.

# Fleet Management Department Parts Inventory Performance Audit

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## **FINDING #5 – IMPLEMENT ADDITIONAL MONITORING CONTROLS (RISK RATING = MEDIUM)**

### **BACKGROUND:**

Parts Division management monitors parts operations and the warehouses using a hands-on, direct oversight approach. This approach features:

- Frequent visits to all warehouses;
- Regular conference calls with parts supervisors;
- Actively reviewing inventory activity;
- Scheduling work of parts personnel;
- Reviewing M5 system receivers prior to authorizing vendor payments;
- Approving P-card transactions;
- Monitoring vendor contract spending limits and recommending new contracts;
- Conducting test counts during the annual physical inventories;
- Requiring communication and approval of downward inventory adjustments; and
- Generally being available to address questions.

### **FINDING:**

Based on inquiries, observations and testing of the Parts Division's monitoring controls, the level of oversight helps to mitigate the risks identified in finding #4 related to incomplete policies and procedures. However, consistent with management's plan to improve the overall process maturity from part purchasing through issuance or return, monitoring controls should migrate to process results that are measured and automated. As such, Parts Division management identified the following monitoring controls which are in process of being implemented that should, once implemented enhance overall process maturity and reliability:

- Developing a monthly management report using M5 system data to identify potential shortages, overstock or obsolescence of parts;
- Using the minimum and maximum quantity levels in the M5 system to monitor inventory investment levels;
- Using inventory turnover and obsolescence reporting from the M5 system to monitor and refine minimum and maximum quantities;
- Conducting regular reviews of outstanding POs in the SAP system; and
- Using the equipment readiness report to identify backlog issues or POs that should be cancelled.

### **RECOMMENDATION:**

We support management's plan to improve monitoring controls and reporting using data available from the M5 system and the City's SAP system. In addition to the identified monitoring controls already being implemented, we recommend the Parts Division develop a review process using data from the M5 system to identify work orders with missing part(s) charges, since timely capture of parts issued to work orders is critical to budget management and inventory accuracy.

## Fleet Management Department Parts Inventory Performance Audit

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### **FMD'S MANAGEMENT RESPONSE:**

Management will continue implementation of monitoring controls and consider implementation of recommendations into its operations. Full reporting aspects of M5 are yet to be determined based on system production environment upgrades done in February through April 2017.

**RESPONSIBLE PARTY:** WeiYao Chang, FMD Assistant Director

**ESTIMATED IMPLEMENTATION DATE:** Some aspects are in-process with planned completion by 12/31/18.

**ASSESSMENT OF RESPONSE:** Management's response and corrective actions are sufficient.

# Fleet Management Department Parts Inventory Performance Audit

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## **FINDING #6 – PHYSICAL ACCESS AND SAFEGUARDING CONTROLS (RISK RATING = MEDIUM)**

### **BACKGROUND:**

FMD's 25 maintenance and warehouse facilities have various operating schedules with the largest maintenance facility operating twenty-four hours, seven days a week and other facilities operating approximately eight hours a day, five days a week. As such, parts staffing and warehouse space varies based on each facilities' needs and operations. Parts staffing is limited to one or two employees for most facilities, except for the largest, which have up to five parts employees during peak operating hours.

Parts warehouses maintain inventory in separate, secured spaces that are locked when parts personnel are not on-site. At times to keep the fleet operable, the maintenance shop will schedule additional operating hours or request a part be picked up by the parts employee. This creates a need to provide warehouse access to individuals outside of the Parts Division until the parts employee returns.

### **FINDING:**

Whenever the maintenance shop is working to repair vehicles or equipment and no parts personnel are on site to fulfill requisitions for a work order:

- The parts employee will provide their physical key to the warehouse space, so parts can be issued in their absence; or
- Preventative maintenance parts will be placed where mechanics can access them until the parts employee can return.

The parts employee must then gather fulfillment paperwork and process the work order changes upon their return. This activity increases the risk that parts could be used and not be accounted for or become missing with no evidence trail to investigate. This is because the warehouses are controlled primarily through physical keys and only a few locations have security cameras that might provide further capability for access monitoring over the inventory.

### **RECOMMENDATIONS:**

We recommend FMD consider implementing smart locks, cameras, or badge technology to enhance the ability to monitor access to parts warehouses when parts personnel are not on site. Further, either smart locks or badge technology can be programmed to help identify the individual and time of accessing the space. Cameras can be used to enable investigation in the event of missing inventory.

### **FMD'S MANAGEMENT RESPONSE:**

Management will consider the cost and feasibility of the recommendations into its operations and implement as appropriate.

## Fleet Management Department Parts Inventory Performance Audit

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**RESPONSIBLE PARTY:** WeiYao Chang, FMD Assistant Director

**ESTIMATED IMPLEMENTATION DATE:** 12/31/18

**ASSESSMENT OF RESPONSE:** Management's response and corrective actions are sufficient.

## Acknowledgement Statement

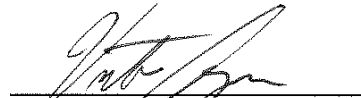
June 27, 2017

Chris B. Brown  
City Controller  
Office of the City Controller

**SUBJECT: PERFORMANCE AUDIT OF FLEET MANAGEMENT DEPARTMENT PARTS INVENTORY –  
ACKNOWLEDGEMENT OF MANAGEMENT RESPONSES**

I acknowledge that the management responses contained in the above referenced report are those of the Fleet Management Department (FMD). I also understand that this document will become a part of the final audit report that will be posted on the Controller's website.

Sincerely,



Victor Ayres, Director  
Fleet Management Department