



GARLAND

INTERNAL AUDIT

Inventory Management Part 1

**Sep 1, 2020
Report 202004**

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Executive Summary

This audit initially started as a review of the inventory (maintenance and repair items, tools, and small equipment) management practices for various departments throughout the city. Internal Audit (IA) began the audit with Department A locations while preparing and obtaining information from other departments to review. With the Covid19 interruption, site visits to other departments was not possible. IA had completed Department A testing and decided to issue the results of the testing.

The Department A maintains two locations. Location 1 manages the maintenance and repair inventory items for both locations. The inventory consists of approximately 1,590 items with a value of approximately \$500,000 (as of January 2020). Location 1 and Location 2 each maintains a tool and small equipment inventory, which is tracked using Excel.

Favorable Observations Noted:

- The Department successfully implemented a new system (April 2019) to manage maintenance and repair stock inventory and recently completed the combination of stockroom inventories for better management of the inventory process and associated costs.
- Location 1 performed a complete inventory count in December 2019 and started performing monthly inventory cycle counts.
- There are security cameras installed throughout the operations building, including the shop and tool areas. In addition, the Locations are working with Facilities to activate card swipe capabilities to provide additional security for City assets.

IA identified the following areas for improvement during this audit.

Location 1 (maintenance and repair items and tools and small equipment)

- A sample count of the maintenance and repair inventory resulted in minor variances.
- Between the IA sample inventory count and the two subsequent Location cycle counts, there was a count variance for approximately 9.5% of the items. Also, Location personnel only made system adjustments and did not perform and document a root cause inquiry.
- The current cycle count process counts maintenance and repair items only one time per year.
- A sample count of the tools and small equipment items resulted in minor variances that Location personnel was later able to provide information to support the existence of the tools.
- Tools and small equipment purchases (22) were not always included in the inventory list or should have be coded to the maintenance and repair inventory.
- The inventory management system contains items at a zero or one penny value that may impact the inventory value with additional purchases.

Location 2 (only tools and small equipment)

- Approximately 50% of the sample tool and small equipment count (total 47) were not at the designated location.
- The Location maintains the same type of tools at several locations throughout the Location.
- The tools and small equipment inventory lists contain approximately 1,100 items and are not classified or categorized consistently to adequately track and manage.
- Tools and small equipment purchases (23) were not always included in the inventory list or should have been coded to the maintenance and repair inventory or fixed assets.

Department A Management is in the process of addressing all suggested opportunities for improvement to enhance the control environment.

IA would like to express appreciation to the Management and staff of each Department A department involved in the audit for their time, assistance, and cooperation during the course of the audit.

Authorization

IA conducted this audit under the authority of Article IV, Section 8 of the Garland City Charter and in accordance with the Annual Audit Plan approved by the Garland City Council.

Objectives

The objectives of this audit were to:

- A. Identify the population of inventory (repair and maintenance items), tools, and small equipment across the City.
- B. Determine if the Departments have adequate controls to ensure accuracy and completeness of inventory records, accountability for inventory transactions, and safeguarding of inventory.
- C. Determine if the Departments have adequate controls to manage and secure tools and small equipment.

Scope and Methodology

IA conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that IA plans and performs the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objectives. IA believes that the evidence obtained provides a reasonable basis for the findings and conclusions based on the audit objectives. No information was omitted from this report because it was deemed privileged or confidential.

The initial scope of the audit included a review of the current practices for inventory management by City departments that utilize maintenance and repair items or tools and small equipment. The scope did not include the City Warehouse, GP&L, Fire, or Police inventory. The period covered inventory activity from February 1, 2018 through December 31, 2019.

At the time of the Covid19 interruptions, the only completed inventory reviews were the two Department A Locations. IA made the decision to issue a report (Part 1) for these areas and issue another report (Part 2) for the remaining departments after testing resumes and has been completed.

To adequately address the audit objective and to describe the scope of work, IA performed the following:

- Reviewed the City directives related to inventory.
- Conducted interviews with City staff.
- Researched best practices for inventory management.
- Selected samples and performed physical counts of inventory.
- Evaluated controls in place to manage inventory.
- Obtained and analyzed inventory data, where available.

In addition, IA reviewed the management control (principles 10 & 12) and monitoring activities (principles 16 & 17) that are two components of the standards for an effective internal control system, as defined by the standards set forth by the Federal Government¹.

To assess the reliability of the inventory data provided from the Department A inventory management system, IA selected a sample of items and validated the physical existence of the items. As the result of IA testing, IA determined that the data provided and available was sufficiently reliable for the purpose of this report. See [Exhibit A](#) for data sampling details.

Background

Various departments throughout the City maintain inventory to support repair and maintenance efforts, including tools and small equipment to support day-to-day operations. The processes to maintain and manage these items differ from department to department. In some cases, an application is used to record all receiving, issuing, and return transactions. In other cases, a manual application, such as Excel, is used. And, in other cases there are departments that do not use any application or process to manage transactions.

¹ Internal control is the system of processes that an entity's oversight body, management, and other personnel implement to provide reasonable assurance that the organization will achieve its operational, reporting, and compliance objectives. The five components are control environment, risk assessment, control activities, information and communication, and monitoring. See U.S. Government Accountability Office, "Standards for Internal Control in the Federal Government," Washington, D.C., 2014, p. 9, available at <http://www.gao.gov/products/GAO-14-704G>.

The expenditures for departments that do maintain an inventory of items for repair and maintenance are recorded in the Finance system. Whereas, tools and small equipment (less than \$5,000 and one year of life expectancy) are expensed and purchased via the standard invoice or P-card processes.

Department A operates two locations and prior to the fourth quarter of 2019 maintained repair and maintenance inventory at both Locations. In early 2019, Location 1 implemented a new inventory management system and throughout 2019 eventually combined all inventory into that location. Both locations maintain a tools and small equipment inventory.

Opportunities for Improvement

During the audit, IA identified certain areas for improvement. The audit was not designed or intended to be a detailed study of every relevant system, procedure, and transaction. Accordingly, the Opportunities for Improvement section presented in this report may not be all-inclusive of areas where improvement might be needed.

LOCATION 1

#1 - SAMPLE INVENTORY COUNT & ANALYSIS (Obj. A&B)

CONDITION (The Way it is)

IA visited Location 1 and met with Management to gain an understanding of the inventory management process, performed an inventory count of the maintenance and repair stock items, and analyses of the inventory management system transactions. The results are:

1. **Inventory Count** - IA randomly selected 91 items for the sampled count ([see Exhibit A](#)). Six of the items did not agree with the count in the inventory management system. The variance for one item was resolved during the count. Location management adjusted the inventory system to reflect the actual count subsequent to the IA count.
2. **Inventory Adjustments** - Management performed a complete physical inventory in December 2019. IA performed a sample count in January 2020 and Management performed cycle counts in January 2020 and February 2020 and all resulted in adjustments to the count maintained in the inventory system. Although the adjustments were not significant, the stock items do not have a high level of activity to warrant the adjustments. See the below table:

Count	Items Counted	Items Adjusted
IA count (mid-January)	91	6
Location Cycle Count (January)	122	11
Location Cycle Count (February)	129	16

3. **Cycle Counts** - Location Management performs a monthly cycle count of the stock inventory. There are approximately 1,590 stock items and the current approach counts each item only one time during the year. Leading inventory practices use a classification methodology whereby important stock items are counted frequently during the year to ensure these items are available and maintained at the desired level.
4. **Inventory System Unit Price Analysis** - During the implementation of the inventory system, Location Management added items to the inventory with a unit cost value of \$0.00 or \$0.01. The items are spare parts provided by a vendor at no cost, older items where a price was not available, or purchases for a work order. Additional purchases of any of the item skews the weighted average unit price and affects the value of the inventory, including the Finance monthly reconciliation.

CRITERIA (The Way it Should Be)

According to the Standards for Internal Control in the Federal Government Policy:

- Principle 10.03, Physical control over vulnerable assets states: "Management establishes physical control to secure and safeguard vulnerable assets. Examples include security for and limited access to assets such as cash, securities, inventories, and equipment that might be vulnerable to risk of loss or unauthorized use. Management periodically counts and compares such assets to control records."
- Section 2 OV2.24, Safeguarding of Assets states: "A subset of the three categories of objectives is the safeguarding of assets. Management designs an internal control system to provide reasonable assurance regarding prevention or prompt detection and correction of unauthorized acquisition, use, or disposition of an entity's assets."
- Section 1 OV1.03 states: "Internal control comprises the plans, methods, policies, and procedures used to fulfill the mission, strategic plan, goals, and objectives of the entity. Internal control serves as the first line of defense in safeguarding assets. In short, internal control helps managers achieve desired results through effective stewardship of public resources."
- Principle 10.10 states: "Transaction control activities are actions built directly into operational processes to support the entity in achieving its objectives and addressing related risks. "Transactions" tends to be associated with financial processes (e.g., payables transactions), while "activities" is more generally applied to operational or compliance processes. For the purposes of this standard, "transactions" covers both definitions. Management may design a variety of transaction control activities for operational processes, which may include verifications, reconciliations, authorizations and approvals, physical control activities, and supervisory control activities."

CAUSE (Difference between Condition & Criteria)

While there are documented procedures on how to use the inventory application, there are no documented procedures for the operational aspects of the physical inventory.

EFFECT (So What?)

Inaccurate inventory or tool and equipment records may impact the ability to provide the required repair and maintenance services, in addition to potential misstatement of the City financial records.

RECOMMENDATIONS

1. **Inventory Count and Adjustments** - Department A should perform and document a root-cause analysis for each inventory item that has an adjustment and implement the necessary process changes. Additionally, Department A should document and implement operational procedures to manage the inventory.

2. **Cycle Counts** - Location Management should consider implementing an enhanced cycle count process, such as the ABC methodology, based on Department A's assessment of the inventory as related to the repair and maintenance program.
3. **Inventory System Unit Price Analysis** – Department A Management should work with the Finance department to develop and implement a process whereby the Location notifies Finance of any such activity so Finance can create a journal voucher to adjust the expense and inventory accounts accordingly. This includes discontinuing the practice of adding an item at a \$0.00 unit price when items are added to inventory and use the actual purchase price and only using the \$0.01 unit costs to identify spare parts.

MANAGEMENT RESPONSE

Management Concur

ACTION PLAN

1. **Inventory Count and Adjustments** - Since the audit, construction and security improvements for the stockroom have been completed and a full inventory count will be scheduled. For any discrepancies found in future inventory or cycle counts, Location personnel will perform a root-cause analysis to find the origin of the inconsistency. Also, to complement the documented inventory system procedures Location Management will development and implement operational procedures for the management of stockroom inventory, including cycle counts, root-cause analysis, and variance resolution. The Location will also work with Finance on the year-end inventory.

IMPLEMENTATION DATE October 30, 2020

2. **Cycle Counts** - Although the current inventory management system has been in place for a year, any analysis may not provide a true picture of activity since inventory was maintained at various locations and was recently combined into one secured location. Management will be evaluating the items that are currently in inventory to determine the correct stocking levels and the feasibility of implementing the ABC cycle counting method.

IMPLEMENTATION DATE May 31, 2021

3. **Inventory System Unit Price Analysis** - Management will work with the Finance department to develop a process and policy for the control and accounting of items purchased and not initially intended for inventory. This will include any current items in stock and items initially purchased solely for a work order, but is determined inventory applicable at a future date.

IMPLEMENTATION DATE September 30, 2020

#2 – TOOL INVENTORY COUNT & ANALYSIS (Obj. A&C)

CONDITION (The Way it is)

During a visit to Location 1, IA performed a tool and small equipment inventory count. The results are:

1. **Tool Count** - IA randomly sampled 26 tools and equipment to validate from the list provided by Location Management ([see Exhibit A](#)). Five items had counts different from the tool list. Subsequent to the count, Location Management provided pictures of each item to show the correct number of items. Location Management indicated that the tool list is not up to date and according to the list, the last update was in January 2019.
2. **Tool and Equipment Expenditures** - IA reviewed a sample (25) of charges to various expenditure accounts for FY19 that resulted in items purchased but not identifiable on the tool inventory list (20) and items charged to an expenditure account instead of inventory (2). [See Exhibit A](#).

CRITERIA (The Way it Should Be)

The Department A Tools and Equipment policy states: "The Maintenance Supervisor shall ensure the accuracy of the inventory list." and "Additional unscheduled inventories (at a minimum twice per year) will be conducted to determine if the tools are still available." Also, The City Capitalization of Expenditures directive contains criteria that expenditures with an expected useful life of greater than one year and with a unit cost greater than \$5,000, the item will be capitalized as part of the City's fixed assets.

CAUSE (Difference between Condition & Criteria)

The department maintains a tools and equipment policy, but does not always adhere to the policy.

EFFECT (So What?)

Inaccurate inventory or tool and equipment records may impact the ability to provide the required repair and maintenance services, in addition to potential misstatement of the City financial records.

RECOMMENDATION

Location Management should:

1. **Tool Count** - Implement a tool cycle count process (similar to the process for stock inventory). Since the tools do not change often, the frequency can be quarterly, with 100% of the tools counts over the year.
2. **Tool and Equipment Expenditures** - Develop and implement a policy or procedure to validate the need for any new tool purchases and verify if the Location already maintains the tool, prior to any additional tool purchases and consult with Finance if there are any questions regarding the proper coding of any tool and equipment purchases.

MANAGEMENT RESPONSE

Management Concur

ACTION PLAN

1. **Tool Count** - Staff will perform a complete tool inventory count every six months per the guidelines established in the January 2020 revised Tools and Equipment Policy (WWT Tools & Equipment Departmental Policy V03.012920).
2. **Tool and Equipment Expenditures** - The Director of Department A will amend the Tools and Equipment Policy (WWT Tools & Equipment Departmental Policy V03.012920) that will include a section related to the purchasing of tools. This includes communication with Finance to ensure using the correct 9000s account code for items that meet the cost threshold of a fixed Asset. Department A Management will communicate these changes to personnel during staff meetings.

IMPLEMENTATION DATE

August 31, 2020

LOCATION 2

#1 – TOOL INVENTORY COUNT AND EXPENDITURE ANALYSIS (Obj. A&C)

CONDITION (The Way it is)

During a visit to Location 2, IA performed a tool and small equipment inventory count. The results are:

1. **Tool Inventory** - IA randomly selected 47 items ([See Exhibit A](#)) to count from the tools and equipment list provided by Location Management. Approximately half (23) of the items were not in the designated location, as noted on the inventory list.

Also, during the sample tool count IA observed the Location maintains the same type of tools and equipment in several locations throughout the Location premises (i.e. in tool bags, toolboxes, carts, trucks, cabinets, rooms, and buildings). Based on the IA physical count the tools do not always remain in the assigned location.

2. **Tool Analysis** – Location Management provided IA tool inventory files used to track and manage tools and small equipment. A review and analysis of the files show that the Location maintains approximately 1,100 tools in 11 locations around the Location. Each location categorizes or classifies items differently providing challenges to understanding the population of items, which may affect tool purchasing decisions.
3. **Tool and Equipment Expenditures** - IA reviewed a sample (25) of charges ([See Exhibit A](#)) to various expenditure accounts for FY19 that resulted in items charged to an expense account instead fixed assets (3) or inventory (2), items that should be on the inventory list (8), and purchases for items that are already on the list (10). [See Exhibit A](#).

CRITERIA (The Way it Should Be)

The Department A Treatment Tools and Equipment policy states: "The Maintenance Supervisor shall ensure the accuracy of the inventory list." and "Additional unscheduled inventories (at a minimum twice per year) will be conducted to determine if the tools are still available." Also, The City Capitalization of Expenditures directive contains criteria that expenditures with an expected useful life of greater than one year and with a unit cost greater than \$5,000, the item will be capitalized as part of the City's fixed assets.

CAUSE (Difference between Condition & Criteria)

The department maintains a tools and equipment policy, but does not always adhere to the policy.

EFFECT (So What?)

Inaccurate inventory or tool and equipment records may impact the ability to provide the required repair and maintenance services, in addition to potential misstatement of the City financial records and unnecessary spending of City resources.

RECOMMENDATION

1. **Tool Inventory** - Perform a complete inventory count and update the tools list as needed. Additionally, Management should consider reducing the number of locations to maintain tools and equipment, which may limit the number of items that are not in the designated area. Furthermore, Location Management should enforce the returning of tools to the assigned area after use.

Also, consider implementing a color-coding system to identify where a tool should belong. This will also help Location employees to return the tools to the proper location (cart, building, truck, etc.), and will make updating the tools and equipment inventory list easier.

2. **Tool Analysis** – Management should consider developing and maintaining only one list that standardizes the classification, description, and location of all tools and equipment versus a separate list for each location. Also, determine if there are tools no longer needed or usable and dispose of the tools in accordance with the City directive.
3. **Tool and Equipment Expenditures** - Prior to any additional tool purchases, Location Management should develop and implement a policy or procedure to validate the need for the tool and verify if the Location already maintains the tool. Also, Management should consult with Finance if there are any questions regarding the proper coding of any tool and equipment purchases.

MANAGEMENT RESPONSE

Management Concur

ACTION PLAN

1. **Tool Inventory** - Staff will perform a complete tool inventory count per the guidelines established in the January 2020 revised Tools and Equipment Policy (WWT Tools & Equipment Departmental Policy V03.012920). Staff will reduce the number of tool storage locations. Using the guidelines of the tool policy, tools shall be permanently marked with durable and unique colors, letters, numbers or symbols that identify each item as belonging to the City. Employees are responsible for the security of tools used for work assignments. Upon completion of work assignments or at the end of the workday, the tools will be returned to the designated storage location. In cases for larger equipment, these items will be secured within the Location until the assignment is completed. Location Management will communicate these changes to personnel during staff meetings.
2. **Tool Analysis** – Staff will revise the number of areas where tools are stored. The inventory list will be standardized and a complete tool inventory is currently in progress. Staff will dispose any tools that are old, broken and are currently not in use

(found tools). The items shall be removed from service and documented on the inventory disposal tracking form by the Maintenance Scheduler. The tool will be placed in the salvage area with the proper documentation, per the guidelines established in the January 2020 revised Tools and Equipment Policy (WWT Tools & Equipment Departmental Policy V03.012920)

3. **Tool and Equipment Expenditures** - The Director of Department A will amend the Tools and Equipment Policy (WWT Tools & Equipment Departmental Policy V03.012920) that will include a section related to the purchasing of tools. This includes communication with Finance to ensure using the correct 9000s account code for items that meet the cost threshold of a fixed Asset. Location Management will communicate these changes to personnel during staff meetings

IMPLEMENTATION DATE

August 31, 2020

Exhibit A – Sampling Methodologies

Maintenance and Repair Inventory

IA obtained a listing of the inventory from the inventory management system at 6 a.m. the day of the sample inventory count. The total population was 1,590 items and using a 95% Confidence Level / 10% Confidence Interval criteria calculated 91 items to count. IA generated a random sample to obtain the 91 items to validate. The results can be projected to the entire population.

Inventory Analysis

IA exported inventory management system data subsequent to the sample count to perform various analyses of the receipt, issue, and adjustment transactions.

Tool and Equipment Inventory

IA was provided a copy of the tool and equipment inventories upon arrival to each Location. IA judgmentally selected items to validate at the various locations throughout each Location where tools and equipment is located.

Tool and Equipment Expenditures

IA ran standard queries from the Finance system for Accounts Payable and P-Card expenditures for each department. IA then judgmentally selected transactions from the expenditure accounts based on description.