

**Los Angeles County**  
**Metropolitan Transportation Authority**  
**Office of the Inspector General**

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**Audit of Controls Over Inventory**  
**At Central Maintenance Facility Warehouse**

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We found that inventory controls at the Central Maintenance Facility warehouse were generally effective. However, we noted opportunities for reducing excess and obsolete inventory, and adopting industrial best practices to conduct and report inventory counts.

**Report No. 19-AUD-03**

**January 28, 2019**



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**Metro**

Los Angeles County  
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**DATE:** January 28, 2019

**TO:** Board of Directors  
Chief Executive Officer

**FROM:** Yvonne Zheng, Senior Manager, Audit  
Office of the Inspector General

**SUBJECT:** Audit of Controls over Inventory at Central Maintenance Facility Warehouse  
Final Report No. 19-AUD-03

## **INTRODUCTION**

The Office of Inspector General (OIG) performed an audit of controls over Metro's inventory of bus and rail parts at the Central Maintenance Facility (CMF) warehouse.

We found that inventory controls at the CMF warehouse were in place and were generally effective to manage and track inventory items. However, we noted some opportunities for improvement concerning: (1) disposition of excess and obsolete inventory items and (2) adopting best practices for conducting and reporting physical inventory counts.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

The objectives of the audit were to determine whether:

- Internal controls over Metro's inventory at the CMF warehouse were in place and functioned effectively in managing and tracking inventory items.
- Inventory was managed in accordance with Metro procedures and policies.

The scope of the audit covered inventory at the CMF warehouse from Fiscal Years (FY) 2017 to 2018. The inventory at CMF totaled 13,293 line items<sup>1</sup> valued at \$25,651,570 as of April 7, 2018.

To achieve the audit objectives, we performed the following procedures:

- Reviewed Metro's policies and procedures that relate to inventory management: Inventory Management Guidebook, Inventory Management Guidelines & Procedures, Material Department Procedures (LOG-1, 4, and 7), and Maintenance & Materiel Management (M3) System Material Work Flows.

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<sup>1</sup> Stock/part number.

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- Interviewed personnel in the Logistics and Procurement Departments to obtain an understanding of the processes and procedures.
- Reviewed the Metro's annual external financial audit for FY17 to determine if any inventory control deficiencies were reported.
- Evaluated controls over materials and supplies receiving, storing, distributing, and recording.
- Visited the CMF warehouse and performed a walk-through of the processes for receiving, storing, and distributing inventory.
- Obtained and reviewed documents of physical inventories performed by Logistics staff.
- Conducted independent random sample physical counts from system record to location (shelf) and vice versa.
- Researched inventory best practices regarding inventory management, ordering, physical count, inventory accuracy, and other processes.<sup>2</sup>
- Determined whether inventory procedures included adequate segregation of duties, approvals, and documentation; and if inventory guidelines and procedures were followed.

This audit was conducted 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 according to our audit objectives.

The period of this audit covers inventory activities during FY17 and FY18. Our sample counts and test procedures were based on the inventory list generated on April 7, 2018. The audit included reviews of the processes and controls over receiving, issuing, distributing, storing, and inventorying material at the CMF warehouse.

## BACKGROUND

The Logistics Department is responsible for managing inventory items at the CMF warehouse. Logistics consists of six groups: (1) Inventory Control, (2) Equipment Asset Tracking, (3) Variance Analysis, (4) CMF Warehouse, (5) Bus Storerooms, and (6) Rail Warehouses.

The CMF warehouse receives, stores, and issues inventory items to division storerooms and CMF maintenance shops. Logistics establishes and maintains records for each material line item and transaction using the M3 system. The CMF warehouse uses an automated storage/retrieval system and guided vehicles to transport inventory items (see Attachment A for pictures of CMF warehouse).

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<sup>2</sup> See Attachment B for list of industry best practice and benchmarking reviewed.

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The Logistics Department has issued several guidelines and procedures on inventory management and control. These guidelines state that the ABC principle is used to group and manage inventory items. Inventory line items are segregated into various inventory value classes so that management focus is on high dollar usage line items and more frequent purchased inventory. The three value classes for active inventory line items are:

- Value Class "A" line items have the highest annual dollar usage. They have annual consumption (issues) of over \$10,000 for bus parts and over \$5,000 for rail parts.
- Value Class "B" line items have a medium annual dollar usage. They have annual consumption of \$2,500 to \$9,999 for bus parts and \$1,000 to \$4,999 for rail parts.
- Value Class "C" line items have the lowest annual dollar usage. They have annual consumption of less than \$2,500 for bus parts and less than \$1,000 for rail parts.

There are also inventory classes for non-active inventory line items.

- Value Class "D" line items are categorized as "Idle" and have no consumption for 1 year for bus parts and no consumption for 5 years for rail parts.
- Value Class "E" line items are categorized as "Inactive" have no consumption in the past 2 years for bus parts and no consumption in the past 10 years for rail parts.
- Value Class "F-Z" line items are categorized as "Obsolete." Items in this class can be sold or otherwise disposed of.

## RESULTS OF AUDIT

Our audit found the internal controls over inventory at Metro's CMF are generally adequate to manage and track inventory items, and guidelines and procedures were followed. However, we found opportunities for improvement in the following areas:

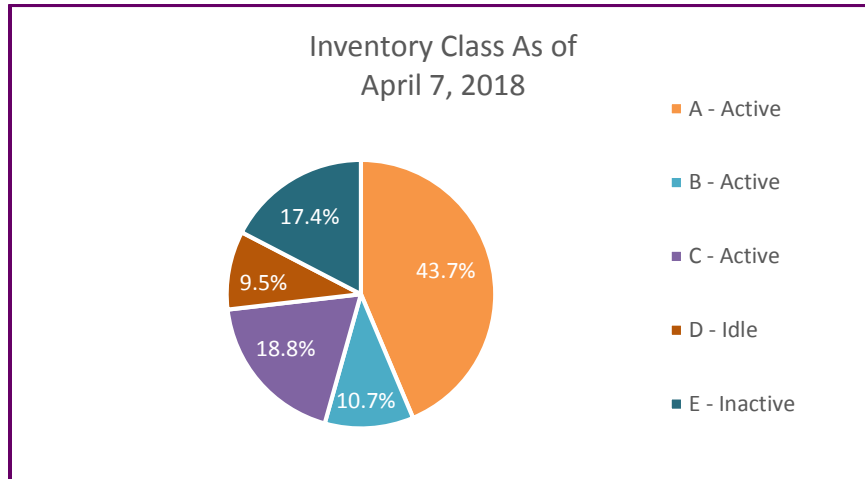
### A. Idle, Inactive, and Obsolete Inventory

We found that \$6.9 million, or 26.9%, of the \$25.7 million total inventory value as of April 7, 2018 at CMF, were classified as "Idle" (Value Class "D") and "Inactive" (Value Class "E") inventory. This total consisted of \$2.4 million or 9.5% "Idle" inventory, and \$4.5 million or 17.4% "Inactive" inventory, as shown in the chart below:

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CMF has two separate buildings to store inventories: Main and Bulk Item. The inventory value classes “D” and “E” represent 30.5% of the inventory at the “Main” warehouse, and 15.6% of the inventory in the “Bulk” item warehouse (see Attachment C). During FY 2018, 1,005 inventory line items costing about \$1.9 million were moved from Value Class “E” to the obsolete category. As of April 2018, there were \$1.84 million obsolete inventory items on hand.

Transit Cooperative Research Program (TCRP) No. 40 (Revised Inventory Management Desk Guide),<sup>3</sup> Chapter 6.3, states that, *“If the inventory contains many obsolete items, the inventory may be overvalued...Too much excess inventory will increase the cost of the inventory, causing capital that would otherwise be used more productively to be unavailable. All excess and obsolete inventory should be eliminated from the inventory...”*

Logistics management told us that they are aware of the \$6.3 million of inactive (\$4.5 million Value Class “E”) and obsolete (\$1.8 million Value Class F to Z) inventory items on hand at the CMF warehouse. They said the department has been working to reduce the level of these inventory items. However, their decision in disposing of inventory often depends on the discretion of the Maintenance Department. They stated that the management at the Maintenance Department often wants to keep inactive inventory on hand longer in case of unforeseen circumstances or emergency. The Logistics management also indicated that they have introduced an “Inventory Reduction Initiative,” which encourages the department to buy less but more often in the future.

We believe it is unlikely items that have not been consumed/issued in over 2 years (bus parts) or over 10 years (rail parts) will be used unless management has a future planned maintenance project or other need that involves the items being retained. If there is no foreseeable need,

<sup>3</sup> TCRP is sponsored by the Federal Transit Administration. Revised Inventory Management Desk Guide (TCRP No. 40) was issued in October 2000.

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these inventory items should be sold or disposed of. Carrying a large dollar amount of inactive/obsolete items at their full acquisition cost distorts the true value of Metro inventory. Although the sale or disposal of excess or obsolete inventory may yield little financial benefit, other benefits occur such as saving time and resources to conduct cycle counts, physical inventories, and storage and handling of items. In addition, the storage space can be saved for storing active materials and parts.

### B. Quarterly Physical Inventory Sample Counts

The two basic methods for calculating inventory accuracy are:

- **Count Method.** The count method provides the percentage of line items or part numbers that match what was recorded compare to the total line items counted. This method measures the accuracy of the on-hand quantities recorded on the stock records. It is a method commonly used by operations and material management.
- **Gross Dollar Variance Method.** The gross dollar variance method measures accuracy from a financial perspective. This method provides the percentage of the gross dollar value of line items physically counted to the total the gross dollar value of the line items recorded on the stock records.

Logistics Inventory Control uses the gross dollar variance method to calculate inventory accuracy. However, best practices suggest the use of the count method for determining the accuracy of inventory records.

#### Best Practices - Count Method for Computing Inventory Accuracy

Defense Contract Audit Agency (DCAA) Contract Audit Manual, Consortium Report Benchmarking & Best Practice, Strategos Guide to Cycle Counting & Inventory Accuracy, and TCRP No. 40 all suggest using the count method to calculate inventory accuracy. The TCRP No. 40 Inventory Guide also discusses the gross dollar value method, which is currently used by the Metro Logistics Department. (See Attachment B for a list of best practices references.)

- DCAA Contract Audit Manual <sup>4</sup> 5-710.3c states: “*Inventory record accuracy attests to the accuracy of the on-hand inventory as opposed to the physical (recorded count) inventory. Inventory record accuracy should be at or above 95 percent within pre-established tolerances ...example of a formula for calculating inventory accuracy is  $\text{Number of Parts Accurate} / \text{Number of Parts Counted} \times 100.$* ”

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<sup>4</sup> DCAA Contract Audit Manual, Chapter 5-700 Section 7 – Audit of Material Management and Accounting System Internal Control, January 25, 2016.

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- Consortium Report, Benchmarking & Best Practice in Cycle Counting,<sup>5</sup> states: *“Inventory accuracy is defined as the number of correct cycle counts as a percentage of total annual cycle counts...For scheduled cycle counts, ensure that the counts are blind and that the system shows the location.”*
- Strategos Guide to Cycle Counting & Inventory Accuracy,<sup>6</sup> 1.02 states: *“The actual calculation of inventory accuracy is quite simple. It is the percentage of items having accurate records. The formula is **Number of Correct Records / Number of Records Checked X 100.**”*
- TCRP No. 40, Revised Inventory Management Desk Guide 8.1.3, states: *“Measuring inventory accuracy involves looking at the degree to which computer records match actual inventory quantities on hand. The primary performance measures look at (1) the percent of inventory items for which the actual quantity on hand matches the computer balance (that is, the percent of accurate balances); and (2) the percent of absolute dollar variance of inventory balance discrepancies. These performance measures are calculated as follows:*

*Percent accurate balances*

*= Number of items (that is, part numbers) that match / Total number of items counted x 100.*

*Percent absolute dollar variance*

*= Sum of absolute (computer value - value of actual counts) / Total computer value of items counted x 100.”*

In addition, Defense Contract Audit Agency (DCAA) Contract Audit Manual Chapter 5-710.3b (Inventory Accuracy) states that the gross dollar value method should not be used for the purpose of determining the accuracy of inventory quantities. *“For Material Management and Accounting Systems (MMAS)<sup>7</sup> purpose **accuracy should not be determined based on the dollar value of an aggregate inventory.** This technique is not representative of the physical accuracy of the inventory because the netting process and material planners rely on the accuracy of recorded inventory quantities when deciding to fill requirements and generate orders.”*

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<sup>5</sup> Consortium Report (Benchmarking & Best Practice), Cycle Counting – Increase Inventory Accuracy & Eliminate Wall-to-Wall Physical Inventory, by Tompkins Supply Chain Consortium, April 10, 2012.

<sup>6</sup> Strategos Guide to Cycle Counting & Inventory Accuracy, Quarterman Lee, Published by Strategos, Inc. in 2006.

<sup>7</sup> 48 CFR 252.242-7004, Material Management and Accounting Systems, May 2011.



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### Quarterly Inventory Results

Teams in the Logistics Inventory Control group conduct physical counts of inventory items on a perpetual basis (throughout the year<sup>8</sup>) and conduct quarterly random sampling cycle counts (110 line items) to detect variances. The Logistics Department reports for five quarterly sample counts (FY17 3<sup>rd</sup> Quarter to FY18 3<sup>rd</sup> Quarter) showed an average inventory accuracy of 99.8% for the “Main” warehouse and 99% for the “Bulk” item warehouse, and a 98%<sup>9</sup> target accuracy. These accuracy rates were obtained using the gross dollar variance method [total inventory value of line items counted minus count variance (in absolute dollar) divided by total inventory value of line items counted X 100].

### Inventory Accuracy Based on the Count Method

We obtained the inventory count details for the same five quarters from FY17 3<sup>rd</sup> Quarter to FY18 3<sup>rd</sup> Quarter and calculated the inventory accuracy based on the count method consistent with best practices (number of line items counted accurate / number of total line items counted X 100). Our calculations showed an average inventory accuracy at 90% and 96%, respectively for the “Main” and the “Bulk” warehouse, as shown in the table below:

**Table 1 – Sample Count Result Using Line Item Count Method**

<b>Sample Count</b>	<b>“Main” Warehouse</b>	<b>“Bulk” Warehouse</b>
FY17 3 <sup>rd</sup> Qtr.	82%	100%
FY17 4 <sup>th</sup> Qtr.	98%	80%
FY18 1 <sup>st</sup> Qtr.	86%	100%
FY18 2 <sup>nd</sup> Qtr.	87%	100%
FY18 3 <sup>rd</sup> Qtr.	97%	100%
<b>Average Accuracy</b>	<b>90%</b>	<b>96%</b>

The average accuracy amounts in the above table are 9.8% lower than 99.8% accuracy rate for the “Main” warehouse and 3% lower than the 99% for the “Bulk” warehouse calculated by the Logistics Department using the gross dollar variance method.

Use of the gross dollar variance method does not effectively measure the accuracy of the recorded quantities on the stock records or accurately reflect the effectiveness of inventory controls. To assist management to better assess inventory accuracy/controls, Logistics should also use the count method to calculate the accuracy of recorded quantities.

<sup>8</sup> Line items in value class A and B are counted 3 times a year and line items in value class C are counted once a year.

<sup>9</sup> Source: Statistical & Performance Reports – August 2018.

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### Inventory Accuracy Goal for Count Method

Best practices suggested by the General Accountability Office (GAO) is the inventory accuracy goal should be (95%). GAO-02-447G,<sup>10</sup> Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, Key Factor 1 (Establish Accountability) state: “*High goals ‘stretch’ the organization and personnel to perform inventory counts with increasingly superior precision. Experts agree that inventory record accuracy goals should be set at 95 percent or higher. Six of the eight leading-edge locations performing cycle counts set performance goals by establishing inventory record accuracy goals that ranged from 95 percent to 98 percent.*”

We believe that Logistics should also use the count method to calculate the accuracy of inventory records and establish a goal of at least 95% accuracy based on best practices.

### C. Inventory Practices Need Improvement

Best Practices state that inventory counters should not be provided with the quantity of items recorded in the electronic inventory system (i.e., “blind count”<sup>11</sup>).

- GAO-02-447G, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, Key Factor 8 (Perform Blind Counts) states, “*A blind count refers to the performance of a physical inventory count without the knowledge of, or access to, the on-hand quantity balance in the inventory records...Blind counts offer the greatest degree of assurance of accurate and reliable counts. If the record on-hand quantity is provided to the counters, there is a risk that the counters will not actually perform the count...We found that blind counts were one of the strongest control measures used at leading-edge locations.*”
- Consortium Report, Benchmarking & Best Practice in Cycle Counting, states, “*For scheduled cycle counts, ensure that the counts are blind and that the system shows the location.*”

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<sup>10</sup> U.S. Government Accountability Office, GAO-02-447G, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, March 2002.

<sup>11</sup> The person(s) who conduct the physical inventory does not have knowledge of the quantities of items shown on the electronic inventory system. Blind counts ensure the integrity of the physical inventory because persons taking the inventory must count the items and precludes counters from just accepting/recording the quantity on the current stock record.

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### Metro Inventory Practices

Metro’s Logistics inventory count team currently performs quarterly sample counts on a system generated random selection of 100 items from the “Main” warehouse and 10 items from the “Bulk” warehouse. We observed that the count sheets used by the inventory team showed the quantity of items recorded on the M3 system, which is not consistent with best practices of blind counts.

### OIG Independent Inventory Count

After observing the inventory count team perform the FY18 3<sup>rd</sup> Quarter sample count on April 7, 2018, we performed an independent inventory of 56 additional line items as discussed below:

- We randomly selected 39 line items from the “Main” warehouse. For 21 of these line items, we validated the quantities recorded in M3 to items counted (on hand) at the storage location (shelf); and for the remaining 18 line items, we counted items on hand at randomly selected storage locations and verified our counts to the quantities shown in M3 (reverse). We found quantity discrepancies for two of the 39 line items and the recorded quantities for the remaining 37 (95%) line items were accurate.
- We also randomly selected 17 line items at the “Bulk” warehouse. For five of these line items, we validated the quantities recorded in M3 to items counted at the storage location; and for the remaining 12 line items, we counted items on hand at randomly selected storage locations and verified our count to the quantity shown in M3. We found quantity variances for 5 of the 17 line items, and the recorded quantities for the remaining 12 (71%) line items were accurate (see Table 2 below).

**Table 2 – Summary of OIG Inventory Count Results**

Count	Inventory Line Items		
	Counted	Accurate	Accuracy Rate
CMF - Record to Location	21	20	95.2%
CMF - Location to Record (reverse)	<u>18</u>	<u>17</u>	<u>94.4%</u>
<b>Total CMF</b>	<b><u>39</u></b>	<b><u>37</u></b>	<b><u>94.9%</u></b>
Bulk - Record to Location	5	4	80.0%
Bulk - Location to Record (reverse)	<u>12</u>	<u>8</u>	<u>66.7%</u>
<b>Total Bulk</b>	<b><u>17</u></b>	<b><u>12</u></b>	<b><u>70.6%</u></b>

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The OIG's independent physical inventory counts, found an accuracy rate of 95% for the "Main" warehouse and 71% for the "Bulk" warehouse. The inventory accuracy for the "Main" warehouse is in line with the 95% best practices accuracy goal discussed in section B of this report. However, the 71% accuracy for the "Bulk" warehouse is significantly lower. Logistics management told us it appears that the majority of the "Bulk" warehouse variance was due to some returns that had not been credited back and recorded on the M3 system.

The majority of the variance from our independent count was derived from the counting items at select storage locations and then verifying the counts to the M3 recorded quantities. Accordingly, we believe that Logistics should include as part of its quarterly sample inventories some counts from the location to the system records (reverse). This will identify errors such as wrong locations recorded in the system or certain transactions not processed correctly or promptly.

### OTHER OPPORTUNITIES FOR IMPROVEMENT

#### A. Use of Blanket Purchase Orders Could Reduce Ordering Time

In most instances, purchase orders (PO) are created for each procurement action to replenish inventory items. Our audit found some line items that are frequently/repetitively procured could be bought through a blanket PO. This would reduce the overall time to procure the items, reduce the inventory levels, and eliminate the administrative time to create a separate PO and shop for a vendor for each procurement. Some examples of inventory line items frequently procured during a 17-month period (January 2017 to May 2018) are:

- 11 procurements for drive axle
- 9 procurements for door assembly
- 8 procurements for lock assembly
- 6 procurements for gasket kit
- 5 procurements for bearing

We suggested to the Purchasing Director that purchases for frequently ordered items could be made under a blanket purchase order<sup>12</sup>, which would streamline the procurement process. The Director agreed and stated that the Department had already planned to utilize blanket POs next year.

#### B. Inventory Guidelines and Procedures Need to be Updated

We noticed that the following inventory guidelines and procedures had not been updated for at least 5 years:

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<sup>12</sup> Also called "Blanket Purchase Agreement."

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- Inventory Management Guidelines and Procedures, dated June 6, 2013.
- Inventory Management Overview, dated June 6, 2013.
- M3 Materials Work flows (undated) contains some procedures that the department no longer uses or documents that have been replaced.

Logistics management advised us that they are aware of this matter and plan to review and update these guidelines and procedures in this Fiscal Year.

### RECOMMENDATIONS

We recommend that the Logistics Department:

1. Continue efforts to reduce the level of inactive items in Value Class “E” by:
  - a. Working with appropriate departments such as Maintenance to identify parts/items that have no foreseeable use (such as those not consumed for long periods and/or Metro no longer uses the equipment/vehicles for these parts),
  - b. Moving appropriate items to obsolete category, and
  - c. Disposing of obsolete items according to Metro’s disposal procedures.
2. Use the count method consistent with best practices to calculate and report the accuracy of inventory records (number of line items counted accurate/total line items counted X 100). In addition, establish an inventory accuracy goal such as 95% consistent with best practices.
3. Implement procedures to conduct physical inventories using “blind counts” consistent with best practices in which individuals performing the inventories do not have the knowledge of, or access to, the on-hand quantity in the inventory records.
4. Consider adding to the quarterly inventory sample counts, a sample of items from randomly selected locations and compare the counts to quantities on the inventory record (reverse). This would help to identify errors such as wrong locations recorded in the system or certain transactions not processed correctly or promptly.
5. Ensure that returned inventory from user departments (divisions) are promptly and properly recorded in M3 and credited back to the CMF warehouse.
6. Complete plans to use blanket purchase orders to procure material when appropriate to reduce procurement time and eliminate work to create a separate purchase order for each procurement.
7. Complete plans to review and update existing inventory guidelines and procedures.

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### **MANAGEMENT COMMENTS TO RECOMMENDATIONS**

Metro management agreed with the recommendations in this report and initiated the following corrective actions. (See Attachment D for copy of management response.)

1. The Material Planning, Maintenance, Logistics and Procurements departments has been working together in reducing inventory and disposing obsolete inventory.
2. DEO of Logistics will ensure the implementation of best practices in inventory accuracy and blind counts by 2019.
3. DEO of Logistics will consult with Metro's ITS department to study the feasibility of implementing random selection of locations for inventory count and discuss with OIG in 2019.
4. Logistic has provided training to "Bulk" warehouse staff regarding proper recording of returns and credits.
5. Material Planning and Procurement has been working together in looking for inventory that can be grouped in blanket purchase orders.
6. DEO of Logistics will ensure that Inventory Management Guidelines and Procedures are reviewed and updated by FY 20.

### **EVALUATION OF MANAGEMENT COMMENTS**

Metro's Vendor/Contract Management's proposed corrective actions are responsive to the findings and recommendations in the report. Metro management should continue to monitor and follow up on implementation of the recommendations until all proposed actions are completed.

## Pictures of CMF Inventory Warehouse

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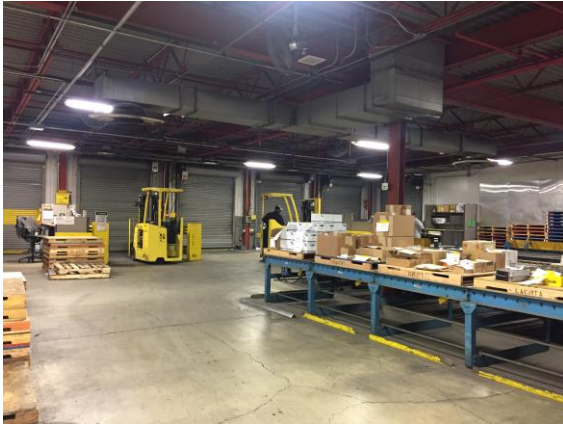


Figure 1 – CMF Receiving Dock



Figure 2 – Automated Guided Vehicle System (AGVS)<sup>13</sup>



Figure 3 – CMF Mini-Load System<sup>14</sup>



Figure 4 – Inventory Count Team on 2<sup>nd</sup> Fl.

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<sup>13</sup> AGVS is part of Metro’s Automated Storage/Retrieval System. They are radio frequency guided self-loading transporters used to distribute material within the CMF. As seen in figure 2.

<sup>14</sup> The Mini-Load cranes are used to automatically pick up, move, store and retrieve small components and/ or parts.

## List of Best Practices References

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1. Defense Contract Audit Agency (DCAA) Contract Audit Manual, Chapter 5-700 Section 7 – Audit of Material Management and Accounting System Internal Control, January 25, 2016.
2. 48 CFR 252.242-7004, Material Management and Accounting Systems, Federal Acquisition Regulation System, May 2011.
3. Consortium Report (Benchmarking & Best Practice), Cycle Counting – Increase Inventory Accuracy & Eliminate Wall-to-Wall Physical Inventory, by Tompkins Supply Chain Consortium, April 10, 2012.
4. U.S. Government Accountability Office, GAO-02-447G, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, March 2002.
5. Revised Inventory Management Desk Guide, Research Results Digest, TCRP No. 40, October 2000.
6. e-Transit: Electronic Business Strategies for Public Transportation, Volume 1, Supply Chain: Parts and Inventory Management, Transit Cooperative Research Program (TCRP No. 84), 2002.
7. Applications for Improved Inventory Management for Public Transit Systems, Transit Cooperative Research Program (TCRP Web Document 17: Project E-3A), January 2001.
8. Best Practices in Inventory Management, DPI Refresher Course for Directors and Supervisors, Randolph Community College, April 2014.
9. Capital Asset Inventory and Condition Assessment, APTA SGR-TAM-RP-00x-13, APTA Standards Development Program Recommended Practice, American Public Transportation Association, 2013.
10. Strategos Guide to Cycle Counting & Inventory Accuracy, Quarterman Lee, Published by Strategos, Inc. in 2006.



**Summary of CMF Inventory by Value Class  
As of April 7, 2018**

Value Class	CMF		Bulk		All	
	Amount	%	Amount	%	Total	%
A - Active	\$ 6,574,648	34.2%	\$ 4,623,727	71.9%	\$ 11,198,375	43.7%
B - Active	2,368,558	12.3%	374,819	5.8%	2,743,377	10.7%
C - Active	4,403,453	22.9%	422,780	6.6%	4,826,233	18.8%
D - Idle	1,966,764 *	10.2%	458,805 #	7.1%	2,425,569 +	9.5%
E - Inactive	3,911,387 *	20.3%	546,629 #	8.5%	4,458,016 +	17.4%
<b>Grand Total</b>	<b>\$ 19,224,810</b>		<b>\$ 6,426,760</b>		<b>\$ 25,651,570</b>	

\*Sum = \$ 5,878,151, or 30.5%

#Sum = \$ 1,005,434, or 15.6%

+Sum = \$ 6,883,585, or 26.9%

## Copy of Management Response

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**Metro**

### Interoffice Memo

<b>Date</b>	January 18, 2019
<b>To</b>	Yvonne Zheng Inspector General
<b>From</b>	Debra Avila
<b>Subject</b>	Response to OIG Draft Report on Audit Controls Over Inventory (Report No. 19-AUD-03)

#### **OVERVIEW**

Logistics appreciates the time and effort invested in this audit by the Office of Inspector General Audit staff. We have reviewed the recommendations and have developed our corrective action. We concur with the recommendations in this report and plan to implement these recommendations to the best of our ability with the goal of improving management controls over inventory.

#### **CORRECTIVE ACTION PLAN**

The following describes the corrective action plan for the recommendations presented in this report. Many of the recommendations address issues which Logistics and Material Planning have been working on for some time.

- In response to recommendation 1a, b, c, these are in place and are continuing. The Material Planning group has oversight and has been working with the Maintenance Department since 2014 in reducing the inventory investment. Furthermore, Material Planning works with Logistics and Procurement in the disposal of obsolete material. This recommendation has been implemented and will be tracked and reported quarterly.
- In response to recommendation 2, this will be implemented by April 2019. The DEO of Logistics will oversee the implementation of the count method and establish an inventory accuracy goal of 95%.
- In response to recommendation 3 this will be implemented by July 2019. The DEO of Logistics will oversee the implementation procedures of blind counts when conducting physical inventories.
- In response to recommendation 4, Logistics will consult with our partners in ITS to study the feasibility of implementing this recommendation. We will contact

## Copy of Management Response

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Andrew Lin with our findings and possible alternative by July 2019. The DEO of Logistics will contact Mr. Lin by July 2019.

- In response to recommendation 5, the Logistics staff in the bulk warehouse were trained on properly receiving and processing credit/returned material. This training was completed 1<sup>st</sup> quarter of FY19. This recommendation is considered implemented and closed.
- In response to recommendation 6, Material Planning and Procurement, in a collaborative effort, are always looking for inventory items that are a good candidate for blanket purchase orders. They will continue this effort. This recommendation has been implemented and will be tracked and reported quarterly.
- In response to recommendation 7, the DEO of Logistics will oversee that the Inventory Management Guidelines and Procedures are reviewed and updated as necessary by the end of 1<sup>st</sup> quarter of FY20.

## Final Report Distribution

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