

I. EXECUTIVE SUMMARY

The Office of Public Integrity (OPI) observed the annual physical inventory of the Department of Environmental Services, Bureau of Operations and Parks, Equipment Services Division auto parts stockrooms on June 16, 2012. The results of the inventory indicate that the variance rates for the main auto parts, the machine shop, the sign shop, police inventory, tire room, used tire room and other tire parts storerooms have all increased since the last inventory.

- ◆ The Office of Public Integrity noted variances in 5.1% of our sample selection of the main auto parts, the machine shop, other tire parts storeroom and Police Department auto parts inventory indicative of differences between the physical counts and the quantities recorded in the perpetual records. In the previous inventory, we noted a 3.2% variance in the main auto parts, the machine shop, the sign shop and the police vehicle inventories.
- ◆ The Office of Public Integrity noted variances in 10.4% of the inventories in the new tire room and used tire room. In the previous inventory, the variance rate was 0%.
- ◆ OPI noted that Equipment Services does not include the quantities of 582 small, low cost hardware parts on the perpetual inventory system. As a result, the value of the inventory is understated by the combined value of these parts.

II. BACKGROUND, OBJECTIVES, AND SCOPE

A. Assignment

The Office of Public Integrity routinely observes and participates in annual physical inventories of various City stockrooms. The Equipment Services Division of the Department of Environmental Services conducted its annual physical inventory on June 16, 2012. The Office of Public Integrity participated in these counts at the request of Equipment Services.

B. Background

Equipment Services maintains and repairs City motor vehicles and other motorized equipment, except Fire Department vehicles. Equipment Services stores and manages an inventory of supplies and materials necessary to perform these functions. As of June 16, 2012, the total value of the entire inventory was \$658,885. The inventory is comprised of nine storerooms. The main auto parts inventory combined with the machine shop, other tire parts, and the RPD auto parts storerooms is comprised of

3,794 line items valued at approximately \$592,435. The tire inventory includes the new tire room and used tire room and is comprised of 115 line items valued at approximately \$66,451. Stockroom personnel use an automated inventory system that assists in controlling quantities and providing various types of information. Equipment Services installed this system in August 2002. A perpetual inventory record is an essential feature of this system.

C. Objective and Scope

The objectives of this review were to assure an accurate and complete physical inventory count and to assess the effectiveness of inventory controls.

Management is responsible for establishing and maintaining a system of internal accounting and administrative control. Fulfilling this responsibility requires estimates and judgments by management to assess the expected benefits and related costs of control procedures. The objectives of a system are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of accurate, informative reports that are fairly stated.

Because of inherent limitations in any system of internal accounting and administrative control, errors or irregularities may nevertheless occur and not be detected. Also, projection of any system evaluation to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the degree of compliance with procedures may deteriorate.

The recommendations presented in this report include the more significant areas of potential improvement that came to our attention during the course of the examination, but do not include all possible improvements that a more extensive review might develop.

II. RESULTS OF REVIEW

The results of this physical inventory indicate that the variance rate for main auto parts has increased since the last inventory date and the variance rate for new and used tires has significantly increased since the last physical inventory conducted on June 25, 2011. Following is a list of all inventory storerooms and the variances that OPI noted.

Department of Environmental Services
Equipment Services
Inventory by Location

<u>Location</u>	<u>Storeroom</u>	<u>Total Line Items</u>	<u>Total Value</u>	<u>Number of Items Tested</u>	<u>Number of Variances</u>	<u>Error Rate</u>
100	Main Auto Parts	3,490	\$546,856.56	409	21	5.1%
101	Machine Shop	252	14,827.58	*	*	*
106/107	New/Used Tire	115	66,450.94	115	12	10.4%
108	Other Tire Parts	2	752.40	*	*	*
109	RPD Auto Parts	<u>50</u>	<u>29,998.22</u>	*	*	*
	Total:	<u>3,909</u>	<u>\$658,885.70</u>			

* Included in Main Auto Parts

A. Variance Analysis – Auto Parts

OPI selected a statistical sample of items included in the stockroom inventory. The sample selection assures proper representation throughout the entire population of inventory items and accurately projects the results against the entire inventory. The range of unit costs included in the sample extends from \$0.01 to \$1,575. OPI compared the actual count of each of these selected items to perpetual records and noted any variances.

Of the 409 inventory items tested in the sample, we noted 21 variances. This represents a sample error rate of 5.1%. The following graph presents historical error rates as a reference.

**Equipment Services Division
Auto Parts Inventory
Sample Error Rate Percentages**

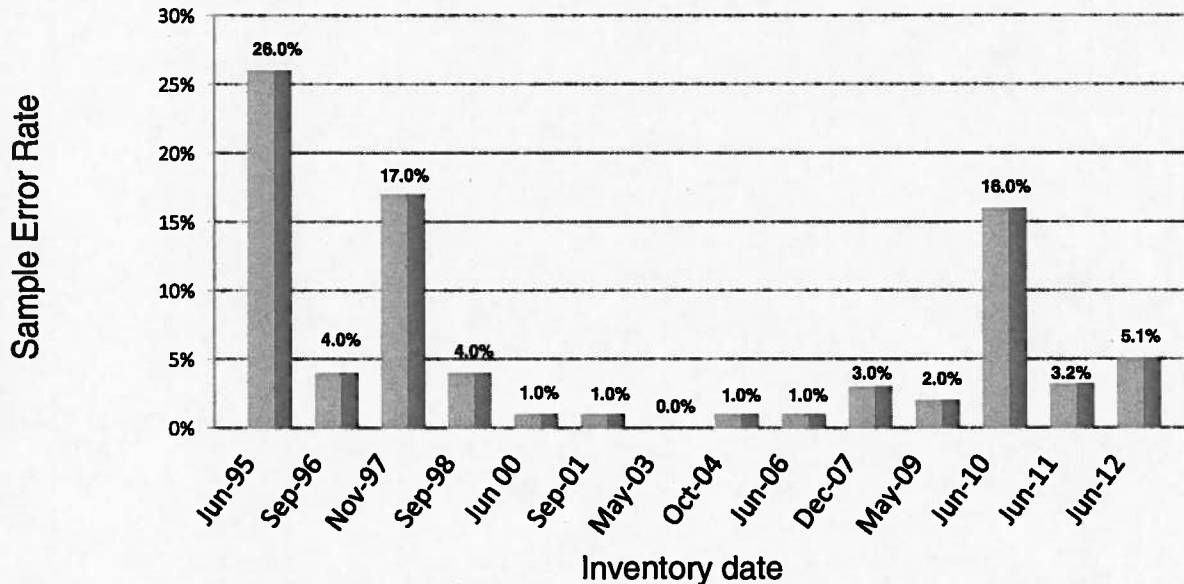


Table I (attached) presents the variance analysis of the statistical sample selection for those items in which a variance exists. It demonstrates individual variances between actual physical counts and quantities recorded in the perpetual records, and presents positive and negative variances separately. Additionally, the table includes the net variance.

When OPI extends the sample error rate of 5.1% to the entire population of 3,794 different stock items (this number includes 3,490 line items in the main storeroom plus an additional 304 line items from three other storerooms combined with the main storeroom), the projection indicates that the actual number of errors in the population is in the range of 110 to 304 item types. The sample error rate of 5.1% is higher than the 3.2% error rate noted in 2011.

◆ **Recommendation**

Equipment Services should determine the causes of the increased variance rate and take corrective action to reduce them.

B. Variance Analysis - Tires

The Office of Public Integrity counted and compared all new tires and used tires storeroom quantities to quantities recorded in the perpetual records. This is in contrast to the statistical sample taken of auto parts.

Of the 115 inventory line items located in these stockrooms, we noted 12 variances for a 10.4% error rate. This 10.4% error rate is significantly higher than the variances noted in both the 2011 and the 2010 inventories. The following graph presents historical error rates as a reference.

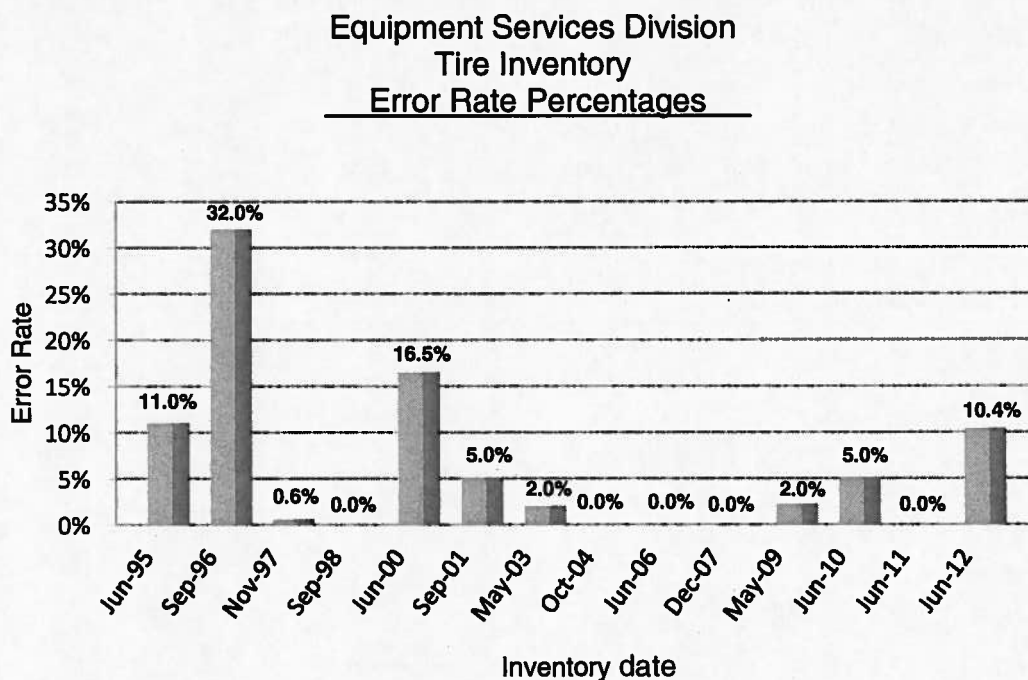


Table II (attached) presents the variance analysis of the statistical sample selection for those items in which a variance exists. It demonstrates individual variances between actual physical counts and quantities recorded in the perpetual records, and presents positive and negative variances separately. Additionally, the table includes the net variance.

◆ **Recommendation**

Equipment Services should determine the causes of the increased variance rate and take corrective action to reduce them.

C. Items not Included on the Perpetual Inventory System

OPI noted that Equipment Services does not include the quantities of 582 small, low cost hardware parts on the perpetual inventory system. Rather, they combine all of these parts into one part number and record it as an independent issue to Equipment Services. Equipment Services uses a unit cost of \$0.25 for this "one" part number regardless of the actual cost of each item. When mechanics need one of these parts for a job, inventory personnel issue it at a unit cost of \$0.25 and deduct it from the quantity issued to Equipment Systems.

Equipment Services personnel list each of these 582 parts separately on the perpetual inventory system with the actual unit cost but with a quantity of zero. Therefore, the value of these items is not included in the perpetual inventory system.

As a result of this practice, Equipment Services is understating the value of the perpetual inventory by the total value of these 582 parts. Although we could not readily determine the value of these items without physically counting each one of them, it appears that the total value is material. We noted 64 items with unit costs between \$2.05 and \$8.51. Control over these items is diminished when they are combined into one part.

A prime objective of taking a physical inventory is to determine variances between actual inventory quantities and book, perpetual quantities. Analysis of variances provides insight into potential problems and can deter major problems before they occur.

◆ Recommendation

We recommend that Equipment Services enter all quantities on-hand into the perpetual inventory system. A small quantity of open stock items is acceptable practice with the remaining quantities listed as distinct parts with actual unit costs on the perpetual inventory system.

IV. DEPARTMENTAL RESPONSE

The response of the Department of Environmental Services follows.

TABLE I: Department of Environmental Services
Equipment Services Division
Stock Room Inventory – June 16, 2012
Variance Analysis – Auto Parts Storerooms 100/101/108/109
Schedule of Inventory Variances Only

Stock Number	Part Description	Booked Quantity On Hand	Actual Quantity On Hand	Item Count Variance		Unit Cost	Dollar Variance	
				Over	Short		Over	Short
109493XCORE	Adip Core	12	8		4	\$ 25.75		\$ -103.00
12361	4" Tire Plug/BX 50	99	50		49	0.32		-15.68
F72383	½-13x1-1-1/2 FHCS	100	0		100	0.25		-25.00
F60306	5/8-11 Stover Lock	1,930	2,101	171		0.11	\$ 18.81	
F43421	5/16-18x1 ¼" Bolt	100	150	50		0.12	6.00	
680754	1Ft Reflect Tape	84	35		49	1.15		-56.35
3Z939	5/16" GR30 Chain	114	24		90	2.35		-211.50
5VU22	Wire Snap Pin 5/16"	12	10		2	7.61		-15.22
2424FB	Snow Brush Wood	112	114	2		1.85	3.70	
H03920	1-1/4" Suction Hose	23	20		3	1.80		-5.40
8F50XS	O Ring To JIC Conn	2	6	4		1.66	6.64	
1MNA3	Coupling ½" NPT	4	3		1	5.00		-5.00
4"	Channel	152	0		152	0.26		-39.52
1/4X1	C.R.S.	1,715	1,736	21		0.28	5.88	
5/16X1-1/2	C.R.S.	66	201	135		0.11	14.85	
7/8DIAB	Round Brass	202	203	1		1.98	1.98	
U300018	Siren/Light Control	2	0		2	329.45		-658.90
FA3SC	Flasher Alternating	1	0		1	68.24		-68.24
RADIOSPEAKEF	Speaker For Radio	21	43	22		23.84	524.48	
AAA BATTERY	AAA Battery 24 Pak	30	33	3		0.78	2.34	
1213A	Amber Marker Light	1	0		1	6.42		-6.42
		<u>4,782</u>	<u>4,737</u>	<u>409</u>	<u>454</u>		<u>\$584.68</u>	<u>\$-1,210.23</u>
Net Variance							<u>\$ -625.55</u>	

TABLE II: Department of Environmental Services
Equipment Services Division
Stock Room Inventory – June 16, 2012
Variance Analysis – Tire Room
Schedule of Inventory Variances Only

Stock Number	Part Description	Booked Quantity On Hand	Actual Quantity On Hand	Item Count Variance		Unit Cost	Dollar Variance	
				Over	Short		Over	Short
LT24575R16EASU	Used / Repaired	3	4	1		\$ 75.00	\$ 75.00	
10165RU	Used / Repaired	1	4	3		50.00	150.00	
205R25RU	Used Radial Loader Tire	4	5	1		100.00	100.00	
235R25RU	Radial Loader Tire	1	2	1		100.00	100.00	
12R225FN	Goodyear G287H	2	3	1		470.13	470.13	
LT24575R17BDFG	All Terrain Spare Takeoff	13	12		1	45.59		\$ -45.59
11R225RN	G244/Drive Traction	13	12		1	393.79		-393.79
P22560R16NPASN	Assurance Fuel Max	9	8		1	90.53		-90.53
11R225FN	G287	6	5		1	378.65		-378.65
31580R225FN	G289 WHA	7	8	1		618.87	618.87	
22570R195FN	G647-RSS Load Range	3	2		1	298.74		-298.74
12R225RN	G244 Drive 00/02Int6/10	<u>2</u>	<u>1</u>	<u>-</u>	<u>1</u>	418.51		-418.51
		<u>64</u>	<u>66</u>	<u>8</u>	<u>6</u>		<u>\$1,514.00</u>	<u>\$-1,625.81</u>
Net Variance								<u>\$ -111.81</u>



To: George Markert, Office of Public Integrity
From: Paul Holahan, Commissioner - DES *P.H.*
Date: October 11th, 2012
Subject: Equipment Services Stockroom Inventory Audit

The Equipment Services division has completed its annual stockroom audit. This was completed on June 25, 2012. The last physical audit was conducted in June of 2011. The Office of Public Integrity (OPI) observed these inventories:

The results of the Equipment Services stockroom inventory audit are as follows:

- The main auto parts storeroom is comprised of almost 3,800 line items with a value of approximately \$592,435. There was an increase in the variation rate from 3.2 % to 5.1 %.
- The tire room inventory is comprised of 115 line items with a value of approximately \$66,451. There was an increase in the variation rate from 0% to 10.4%.

As recommended by the OPI; Equipment Services has identified causes of the variances and possible weaknesses in our procedures. We will implement sound corrective actions to continually improve our operation and make inventory control a priority. Corrective measures are as follows:

- We will continue to perform cycle counts according to best practices. All cycle counts will be reviewed and signed off by the Fleet Manager. Corrective steps will be taken on an as needed basis.
- We will access alternative ways to manage our small, low cost hardware, following established standards. We will share these approaches with OPI to get feedback and buy-in, prior to moving forward with any new process regarding adding small, low cost hardware to the perpetual inventory. This will include reviewing and adjusting Fleet Management Policy / Procedure 13.11 (Hardware Inventory Adjustments)
- The main auto parts storeroom and the tire room inventory will be spot checked monthly and results will be reported to the Fleet Manager.
- We will be reviewing and adjusting Fleet Management Policy / Procedure 13.12 (Tire room inventory procedures), as well as amending and adding signage and tire racks to continue to enhance the effectiveness of the operation.

- Updating our obsolescence and reducing the number of total items which will allow us to continually improve on our inventory management.
- Parts that were in question were miss housed and later verified by OPI. Stockroom management and staff will be more vigilant in the housing of parts and supplies, and make it a priority to insure all parts and supplies are in the right place.
- All staff will be participating in ongoing in-service training and will adhere to all stockroom policies and procedures.

Equipment Services personnel has corrected ALL variances found on the perpetual inventory during the audit (June 16, 2012), therefore errors will not carry over to future audits.

Equipment Services has tentatively scheduled the annual inventory for June of 2013. We are confident that these corrective measures and enhanced training will produce a better outcome. As always we will continue to make inventory control a high priority.

Thank you

XC:

Norman Jones, Director of Operations / Parks

Mike Quattrone, Assistant Director of Operations / Parks

Scott Corser, Fleet Manager