



Wicomico County, Maryland

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Internal Auditor's Report

The County Council and County Executive of Wicomico County, Maryland:

Pursuant to Section 305(D) of the Wicomico County Code and Council Resolution No. 125-2012, the Office of the Internal Auditor (IA) has conducted an Audit of the Wicomico County Department of Public Works - Solid Waste Division Inventory System. A report is submitted herewith. The purpose of the audit was to determine the adequacy of procedures and controls along with the level of compliance with those procedures and controls for the process of maintaining and controlling inventory levels for various parts and materials used by Solid Waste Division for maintenance and other purposes.

IA conducted the audit with due professional care, and IA planned and performed the audit to obtain reasonable assurance about whether the current inventory system practices are in compliance with applicable policies and procedures and whether those policies and procedures are adequate to obtain an acceptable level of control.

The audit revealed a robust inventory system that is well organized and lean. IA identifies several findings in subsequent sections of this report that bear discussion.

IA extends our appreciation to Management and Staff of Wicomico Public Works Solid Waste Division for their timely assistance, cooperation, and candid assessment of their inventory control system.

Respectfully submitted,

J. Stephen Roser, CPA/CIA
Internal Auditor

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Audit Report

Background

Solid Waste Division must maintain the vehicles and equipment it uses to perform the various functions with which it is charged. Solid Waste maintains the Newland Park Landfill and numerous associated transfer stations and recycling centers for disposal of solid waste in Wicomico County including household and commercial trash, brush, and recycled material. Additionally, Solid Waste performs ancillary projects related to dredge site and road site preparation.

Classes of Inventory

Solid Waste Division maintains its vehicles and equipment at a garage facility located at the Newland Park Landfill. The Landfill employs its own personnel to perform maintenance and repairs to vehicles and equipment. Some of the work however may be performed by outside service agencies. This is especially true concerning warranty work and work performed on leased equipment that may be part of a lease agreement.

IA considered four types of inventory related for this audit:

- Maintenance supplies
- Tires
- Parts for vehicles and equipment
- Mechanic's tools

Maintenance supplies inventory contains items unrelated to vehicle and equipment maintenance such as cleaning and safety supplies. Solid Waste tracks inventory through a localized software program provided by JJ Keller.

Accountability Process

Solid Waste Division maintains an active accountability process for internal control over inventory. Some of the measures in place include:

- Centralized location for stock
- Restricted entry to locked stockrooms
- Separation of duties
- Management oversight

Additionally, the inventory is highly organized and excess stock is limited.

Audit Objectives

The objectives of the audit were to:

1. Evaluate internal control over parts and tools inventory
2. Assure adherence to controls
3. Evaluate methodology for disposition of obsolete inventory

Scope of the Audit

The audit period examined on a test basis was FY 2013 to date. Additionally, IA reviewed selected expenditures related to inventory over a four-year period. The Scope was open ended. Observations and Inquiries with appropriate personnel were conducted, as well as examination of various documents (subject to change based on preliminary surveys and interviews) pertaining to the following:

- Map inventory process
- Evaluate internal controls
- Inspect inventory storage
- Observe periodic inventory and test with perpetual inventory
- Test inventory for existence

General Highlights

Solid Waste Division tracks perpetual inventory daily via localized software provided by JJ Keller. Work orders follow materials through the process. Appendix I contains a graphical representation of the inventory cycle. Solid Waste Division takes a physical inventory monthly. Ordering is as needed. Management personnel point out that equipment is aging requiring increased repairs. Outside agencies provide onsite maintenance and repair for most large leased equipment. Inventory includes office supplies and cleaning supplies along with safety equipment. Solid Waste inventories most items in these categories according to how they are packaged. Additionally, Solid Waste maintains no inventory for gravel or sand.

IA reviewed the inventory accounting process and found no anomalies in the month ending March 31, 2013. Solid Waste accounting provided this office with working papers detailing the month-end process to tie out physical and perpetual inventories and IA found no inconsistencies. Additionally, IA performed some random testing for existence and found no errors. Disposition of obsolete inventory items for Solid Waste does not appear to be an issue. The inventory is highly organized and replenished quickly. The Solid Waste system resembles a JIT¹ system that serves to eliminate waste.

Conclusion

Based on evidence gathered, and interviews performed pursuant to the Public Works Solid Waste Division Inventory Audit, IA is of the opinion that Solid Waste Division inventory management for Wicomico County is presently at a satisfactory² level.

Schedule of Findings and Recommendations/Management Response

The findings listed below represent some key issues that bear discussion as an added feature to the audit process. It is noteworthy that all three objectives for the Solid Waste Inventory System Audit, as stated in the conclusion, were satisfactory. The audit revealed no evidence of material weakness or significant deficiencies in the areas tested. The findings are both positive and negative and they do not rise to the level of concern that material weakness or significant deficiencies would garner.

1. Materiality

IA looked at recorded expenditures related to inventory over a four-year period. Results are as follows:

¹ JIT stands for a "just in time" inventory system strategy to increase efficiency and decrease waste. In manufacturing, raw goods are received just as they are needed in the production process. In service industries, JIT minimizes stock through a robust system of ordering minimal amounts as needed. An entity must have vigorous cooperation with suppliers in order to employ a JIT inventory system. Additionally, the cost-benefit of quantity discounts vs. carrying costs should be considered.

² For the purposes of this audit, IA uses a three-tier grading system recommended by the International Professional Practices Framework (IPPF) as expressed by the IPPF Practice Guide issued March 2009. The three tiers are Inadequate System of Internal Control, Adequate System of Internal Control, and Satisfactory System of Internal Control. Satisfactory findings indicate that overall controls are satisfactory, although some enhancements may be recommended. It is the highest rating on the scale.

	FY ³ 2010	FY2011	FY2012	FY13 Budget	FY13 YTD 1/31/2013
Maintenance Supplies	\$34,821	\$32,919	\$57,670	\$50,000	\$50,526
Vehicle Expense - Tires	\$26,868	\$53,899	\$56,314	\$60,000	\$51,528
Vehicle/Equipment Expenses - Repairs	\$14,898	\$85,653	\$94,746	\$100,000	\$72,990
Vehicle/Equipment Expenses - Parts	\$62,348	\$124,199	\$117,465	\$125,000	\$66,462

These four expenditures, taken as a whole, represent nearly 8% of operating expense and 5% of total expense on a budgetary level. Additionally, expenditures for repairs and parts increased significantly from FY2010 to FY 2011. If the figures are correct, IA recommends a breakout study to ascertain the reason for the increase.

Management Response

These four accounts have had significant increases due to our increase in shop activity. Starting in FY 2011, Solid Waste mechanics have been performing as many repairs on-site as possible; this includes maintenance and repairs to a fleet of 60+ pieces of small equipment, large equipment, and light and heavy duty trucks. In FY 2011, 2012, and 2013 Solid Waste has been involved in two large projects; Sharps Point Dredge Site and Construction of the Westside Collector Road, where we have been responsible for the repairs on nine large pieces of rental equipment and two rental pumps. These projects have been costly due to the fact that large equipment repairs costs can range from \$1,000 to \$37,000. Solid Waste also has an aging fleet, which tends to be costly due to the high demand in maintenance and repairs that have to be completed more frequently due to the age of the fleet.

2. Service Kits

Solid Waste Division inventory personnel organize parts for routine maintenance in service kits. Each machine has a service kit generally consisting of three to five filters and other parts. They are arranged and stored in groups according to need and are replenished as needed. Service kits are for routine maintenance only.



Typical service kit storage

³ Wicomico County fiscal year begins on July 1 and ends June 30

3. Tires

Solid Waste Division maintains tire inventory in a separate locked building. There are two keys to tire storage. Only the inventory manager and a supervisor can gain access to the tire building. No other individuals can gain access including accounting and upper management. The goal of inventory management is to maintain 16 drive tires and six steering tires in stock at all times. Tire prices have been increasing on average six to nine percent per year⁴ on average driven by increased raw material prices, especially fuel costs. The increase in tire expenditures from FY 2010 to FY 2011 however was nearly 100%. If the figures are correct, IA recommends a breakout study to ascertain the reason for the increase.



Tire storage

Management Response

The graph below represents the amount expended to purchase tires, amount expended in tires used, and the amount expended in service calls/repairs from an outside mechanic (Service Tire Truck Center, Seaford, DE - STTC). In FY 2011, 2012 and 2013, Solid Waste expended more in tires due to the use of additional large rental equipment. For example, Solid Waste has had three off road trucks in use at Sharps Point Dredge Site and the Collector Road, these tires range from \$2,000 to \$3,050 each. We have to pay an outside vendor to install these types of tires due to Solid Waste mechanics not having the necessary machinery on site.

Year	Total	Purchased	Tires Used	Service Calls/Repairs
2010	26,868.47	8,884.68	20,575.51	17,983.79
2011	56,619.09	34,998.20	27,504.04	21,620.89
2012	56,314.12	42,451.71	48,181.48	13,862.41
2013	55,653.38	41,948.13	32,748.33	13,705.25

⁴ Source: Government Fleet; www.government-fleet.com; October 20, 2011

4. Recycled Material

Recycled material, according to Solid Waste Management, is not inventoried. Recycled material has no cost basis for Wicomico County related to purchase. IA recommends a risk assessment for recycled material with an eye toward a future audit. It may be prudent to consider a cost/benefit analysis related to the maintenance of an inventory to track recycled material.

Management Response

Recycled materials are hauled using our trucks and are weighed in on our scales, which shows pounds of material we have received. All material is then sorted and baled. We track an estimate of bales on hand and the exact number of bales that are shipped out to bid awarded vendors for revenue. This fiscal year we hired a Recycling Coordinator and are in the process of working towards a more effective and efficient strategy of tracking of Recycled materials.

5. JJ Keller Reports

As mentioned previously, Solid Waste tracks inventory with software provided by JJ Keller. The localized software also provides various reports to assist management in controlling its inventory. IA reviewed a report showing the parts activity list over a 30-day period. The report shows all activity for each item in inventory in and out for the period. A vendor activity list is also available. The vendor activity list assists accounting in tracking blanket purchase orders and capitalization⁵.

6. Mechanic's Tools

Solid Waste purchases the tools used by mechanics. IA reviewed a Fraud Risk Assessment Report (dated September 30, 2008) performed by an outside agency. On page four the report states: "We suggest that a tool inventory system be established to control the tools inventory". According to management, Solid Waste ordered three sets of tools in 2010. The tools are under lock and key and they are engraved prominently with "SW" for Solid Waste. IA inspected tool storage and found it to be secure. The tools are listed in the JJ Keller inventory system, but are not physically counted. The inventory list values all tools at \$12,385. IA suggests an occasional physical inventory of mechanic's tools.

7. Vendors

IA adjusted the scope of the audit in order to look at vendor activity for the accounts related to inventory. IA reviewed the Fraud Risk Assessment Report (dated September 30, 2008) submitted by an outside agency. The report points out problems with "sole source vendors" and the associated opportunities for misconduct. IA determined that only one sole source vendor, for the accounts tested, was in evidence – a tire supplier. According to Purchasing, Solid Waste purchases tires under a State piggyback contract. Purchasing issued a blanket purchase order based on that contract in July. Per management, the vendor in question is the only tire supplier willing to stock some of the expensive, specialized tires needed by some of the Solid Waste off-road equipment. Additionally, the tire supplier possesses the specialized equipment needed to mount the tires and they provide robust field service to the County. Management may want to consider other bids for tires.

Management Response

In addition to our previous discussion, Solid Waste has been piggybacking off the state contract with STTC for the last two fiscal years. Solid Waste management has looked into other tire vendors and STTC was able to meet ALL

⁵ In accounting, when the accumulated cost of a particular repair exceeds a threshold amount and extends the life of the vehicle or piece of equipment, it must be capitalized. That is, the value of the repair is added to the cost basis of the vehicle/equipment and depreciated.

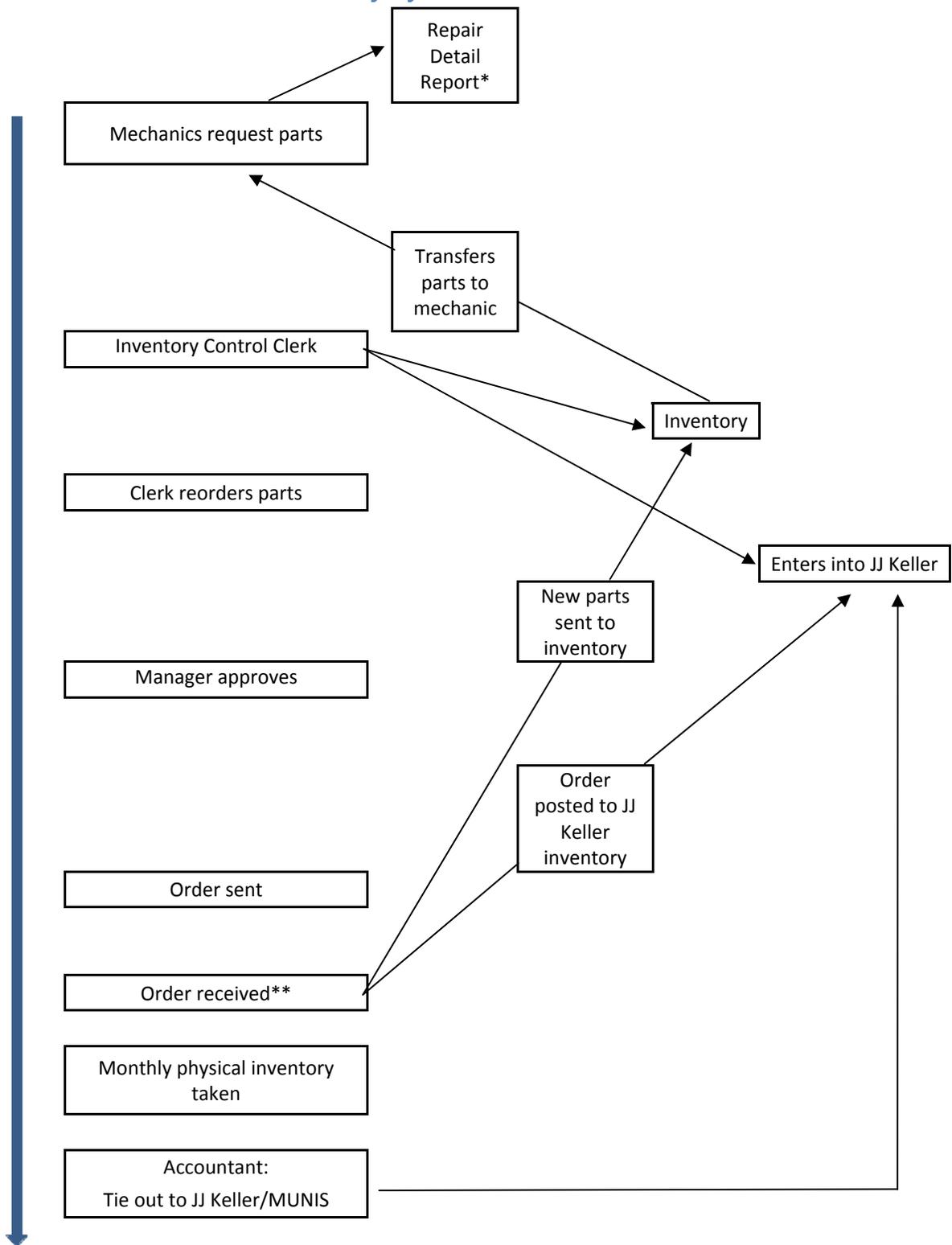
of our expectations. Most tire vendors do not keep specialized large equipment tires in stock due to low demand in our area. STTC has agreed to stock oversize tires (e.g. 235/R25) at all times with same day repair 24/7.

We are in preparation of having the tire bid published this upcoming fiscal year.

Auditor's Closing Remark

The Wicomico County Office of the Internal Auditor would like to thank management and staff from Wicomico County Department of Public Works - Solid Waste Division for their timely cooperation and assistance during the audit. Special thanks go to Solid Waste accounting and inventory control managers for their prompt attention to requests for information and their availability.

Appendix I - Solid Waste Inventory Cycle



*Flows through the request/repair/ordering process

**Receiving requires two verification signatures