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DEPARTMENT OF PUBLIC WORKS
AUDIT OF THE GASBOY FUEL MANAGEMENT SYSTEM
FOR THE PERIOD
JANUARY 1, 2011 THROUGH DECEMBER 31, 2012

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ERIE COUNTY COMPTROLLER

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October 9, 2013

Honorable Members
Erie County Legislature
92 Franklin Street, 4th Floor
Buffalo, New York 14202

Dear Honorable Members:

The Erie County Comptroller's Office has completed an audit of the Gasboy fuel management system for the Fleet Services Division of the Department of Public Works.

We conducted our audit 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. Our objectives were to: (1) Document and evaluate the internal controls over the Gasboy system; (2) Verify compliance with applicable federal, state, and county laws and regulations.

We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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Executive Summary

- There is a lack of segregation of incompatible duties over Gasboy vehicle keys.
- Gasboy IDs have remained active for thirty separated employees of which nine of the IDs were used to conduct 709 fuel transactions. However, we found no evidence to believe that this fuel was misappropriated.
- Over 22% of Gasboy employee IDs are assigned to the incorrect department or division in the Gasboy system.
- There were a total of 102 Gasboy users with no activity from January to July, 2013.
- The Gasboy software system used by the County is outdated.
- Employees are using Gasboy employee IDs other than their own.
- Fleet is in compliance with New York State regulations for monitoring of underground fuel tanks for leaks.

Background

Fleet Services (Fleet), a division of the Department of Public Works (DPW), is responsible for all activities related to the County's vehicle fleet including: vehicle acquisition and disposal, maintenance and repair, vehicle assignments, and all aspects of vehicle refueling including fuel purchase and the fuel management system – Gasboy. Most of the County's vehicle fleet is assigned to specific departments. Fleet also manages pool vehicles which are shared vehicles that County employees have access to with proper authorization for County business.

Gasboy is used by many large organizations and municipalities. There are multiple safeguards in place to ensure that unauthorized individuals are not obtaining the county's fuel.

This system has multiple control features in place. County vehicles and large equipment are assigned a Gasboy key. Each fuel site also has a key for small equipment and portable fuel tanks. The key must be entered into the fuel pump in order for the fuel pump to be activated. The keys contain a computer chip and are coded for a specific vehicle. The fuel pump requires that the vehicle's odometer reading be entered. This reading is compared to the reading on the chip. It must be larger than the prior reading in order for the reading to be accepted. The new odometer reading is stored on the key for the next refueling. The computer chip is also coded to only allow the correct fuel for the vehicle – either diesel or unleaded. There is also a maximum amount of fuel per fill coded on the key. If the key is coded for a maximum of 15 gallons, the gas pump will shut off after dispensing 15 gallons and will not allow additional dispensing. A vehicle is added to Gasboy upon acquisition by Fleet. In 2012 there were 907 Gasboy keys assigned to County vehicles and equipment.

In addition to a vehicle key and an odometer reading, the employee must also have a valid Gasboy employee ID in order to obtain fuel. The employee must enter his or her four-digit

Gasboy ID. An employee can only be added to Gasboy by Fleet with the approval of the employee's Department Head. As of July 23, 2013[1] there were 701 active Gasboy IDs.

Nightly the fuel sites transmit the day's transactions to the main Gasboy computer housed at the Rath Building. Each morning Fleet verifies that no error occurred with the transmission and that the communications are online.

The County currently has twenty-six fuel sites located at Highway Garages, Erie County Parks, Erie Community College, and Sewer Districts. All County employees with Gasboy access can utilize any of the County's fuel pumps, regardless of the location.

The composition of Fleet has changed significantly over the years. Previously Fleet was under the Department of Information and Support Services (DISS) and as recent as 2004 had ten employees – including a Director and Deputy Director. Fleet is now a division of DPW and operates with only two full-time employees, a Supervising Automotive Mechanic (Fleet Supervisor) and a Laborer.

Findings

I. Lack of Segregation of Incompatible Duties Over Gasboy Vehicle Keys

An essential component to a system of internal controls is segregation of incompatible duties. The responsibilities of authorization, custody, and reconciliation over an asset should be assigned to different individuals in order to maximize the internal control over the area.

There is not appropriate segregation of these duties over the Gasboy vehicle keys within Fleet. The Fleet Supervisor maintains physical custody of the non-active keys in a locked desk drawer. He is the only employee that has access to this drawer and the key. The Fleet Supervisor is also the only employee that has Gasboy system access to activate the keys (authorization). A reconciliation of the inactive keys presently does not occur, nor is an inventory or log of the inactive keys maintained.

Ideally when the activation of a Gasboy key was required the employee with the activation responsibilities would request a key from another employee whose responsibility was to store and safeguard the keys. The key would then be signed out on the key log, noting the vehicle the key was being activated for. The first employee would then activate the key as required. Periodically someone other than these two employees should perform a physical count of the inactive keys to ensure that the number of keys matches the ending balance on the log.

Fleet does not have sufficient staff to allow for the proper segregation of duties. The Fleet Supervisor handles all of the administrative functions while the Laborer works in the Rath Building garage. Fleet has attempted to increase the control over the keys by giving only one employee physical access to the keys as well as the ability to activate the keys. While this is a

[1] The Gasboy employee list was tested for a date outside of the audit period as it can only be printed as of the current date.

better practice than having multiple employees that have access to the non-active keys and the Gasboy system access to activate the keys, preferably a different employee would activate the Gasboy key than the employee responsible for the keys' safekeeping.

WE RECOMMEND that DPW management evaluate the need to add new staff or reallocate existing DPW staff to Fleet in order to establish proper segregation of incompatible duties. **WE FURTHER RECOMMEND** that physical custody of the inactive Gasboy keys be assigned to employees that do not have access to activate the keys. The keys should continue to be maintained in a secured cabinet or drawer.

WE ALSO RECOMMEND that a log of inactive keys be maintained. This list should contain the beginning balance, additions (purchase of new keys and recycled keys), subtractions (activated keys listing the vehicles they were assigned to and damaged/lost keys), and ending balance. A physical count of inactive keys should be done periodically (at least annually) and compared to the inventory log. This inventory verification should be done from someone other than the Fleet Supervisor and the employee(s) that are responsible for the custody of the keys. Any discrepancies should be investigated immediately.

II. Gasboy IDs Are Active for Separated County Employees

The Gasboy Employee IDs have remained active for thirty County employees that terminated their employment with the County between April 30, 2005 and January 1, 2012. The Gasboy IDs for these thirty employees were not disabled from Gasboy because Fleet was not notified by these employees' Department Head that these employees were no longer working for the County.

Exhibit One – Active Gasboy IDs for Separated Employees by Department

Department	Number of Active IDs
District Attorney	5
Jail Management	5
Sewer Districts #1, 4, & 6	5
Parks Department	3
Sewer District #2	3
Office of the Sheriff	3
Department of Public Works – Highways	2
Sewer District #3	2
Health Department	1
Sewer District #6	1

Nine of these Gasboy IDs had fuel transactions during 2012. These IDs accounted for 709 transactions, fueling 97 different County vehicles belonging to the County, District Attorney, Jail Management, Parks Department, Sewer District #2, Sewer District #3, Sewer District #6, and the Office of the Sheriff. We found no evidence to support that this fuel was misappropriated or was used in anything other than County-owned vehicles and equipment.

WE RECOMMEND that these thirty Gasboy Employee IDs be immediately disabled. Employees should not be using a Gasboy employee ID that is not assigned to them. As Fleet has previously requested notification from Department Heads of personnel changes and is not receiving cooperation from the departments **WE FURTHER RECOMMEND** that the Commissioner of DPW issue a formal policy requiring Department Heads to notify Fleet of employee separations.

Periodically a list of the department's authorized Gasboy users is sent from Fleet to the Department Head. They are asked to review the report and note any employee that can be "*removed from the system for low or no usage, retirement, department transfer, or termination.*" **WE ALSO RECOMMEND** that the Commissioner of DPW work with Fleet to ensure that County Departments comply with this request.

III. Gasboy Employee IDs Are Assigned to the Incorrect Department or Division

Departments are set up in Gasboy by the different departments within the County. Some of the larger departments are further broken down by their divisions such as the Highway Department by the Highway Garages, Parks Department by the individual parks, and Sewers by the districts.

As of July 23, 2013 there were 701 County employees with Gasboy access. Eighty of these employees were assigned to the incorrect division within the proper department (for example a Parks Department employee assigned to an incorrect park). An additional 75 employees were assigned to the incorrect department. These combined 155 employees represent over 22% of employees being assigned to the incorrect Gasboy department.

Each Department Head is responsible for notifying Fleet of movement of employees with Gasboy access between departments and/or divisions just as he or she is responsible for notifying Personnel of such movement. As with the previous finding, Fleet is not being notified of these personnel changes.

Since Fleet has previously requested that Department Heads notify the department of personnel changes **WE RECOMMEND** that the Commissioner of DPW issue a policy requiring Department Heads to notify Fleet of all relevant personnel changes affecting employees with Gasboy access. As with the previous finding **WE AGAIN RECOMMEND** that the Commissioner of DPW work with Fleet to ensure that County Departments are complying with this request.

IV. Gasboy Users With No Activity in 2013

The Gasboy Employee ID Report dated July 23, 2013 had 701 employees with Gasboy access. Finding II stated that there were thirty employees with active Gasboy IDs despite having terminated their service with Erie County. Nine of those Gasboy IDs had activity; however the remaining twenty-one Gasboy IDs did not have activity from January 1 to July 22, 2013. An additional eighty-one IDs also did not have any activity in 2013. In total, 102 of 701, or nearly 15% of Gasboy IDs did not have activity in the first seven months of 2013.

Only employees with a bonafide, repeated need for access to the fuel system should have a Gasboy employee ID. Department Heads should consider whether the employee will have a recurring need for fuel access before requesting and authorizing such access for his or her employees. Appendix I displays the number of Gasboy IDs by department, the average fuel use per ID for January 1 to July 22, 2013, and the number of IDs with no activity through July 22, 2013.

Gasboy has a mechanism to purge users that have no activity for the year. Per Fleet a purge is run each year-end.

WE RECOMMEND that Fleet send a list of each department's Gasboy users to the Department Head. The list should be thoroughly reviewed by the department for deletions due to little or no use, as well as the personnel changes as mentioned in the previous findings. All changes should be reported to Fleet Services.

V. The County is in Compliance with the New York State Regulations for Underground Fuel Tank Leak Monitoring

6 CRR-NY §613.4 regulates the inventory monitoring for underground fuel storage tanks with capacities exceeding 1,100 gallons. This regulation requires:

> (1)*The operator of an underground storage tank must keep daily inventory records for the purpose of detecting leaks. Records must be kept for each tank and shall include measurements of bottom water levels, sales, use, deliveries, inventory on hand and losses or gains. Reconciliation of records must be kept current, must account for all variables which could affect an apparent loss or gain and must be kept in accordance with generally accepted practices.*

The Gasboy system automatically conducts a weekly test to determine the amount of fuel remaining in each tank. By reconciling this amount with the fuel purchases and the fuel dispensed Gasboy can automatically determine the likeliness of a fuel tank leak. A report is printed for each fuel tank. Fleet maintains copies of each fuel tank's weekly report.

WE RECOMMEND that Fleet continue to utilize this leak monitoring procedure and maintain copies of the reports in compliance with record retention policies.

Auditor's Comments

I. Current Version of Gasboy System is Outdated

The Gasboy software version currently in use by the County is outdated. It is a DOS-based program that connects to the fuel pumps by dialing out via modem through a telephone line. The vendor no longer supports the hardware used at the fuel pumps. The County is in the midst of a planned multi-year fuel system upgrade. Currently worn fuel tanks are being replaced. Provided that the funding remains available, the hardware used at the fuel pumps will be replaced during the next stage. The final stage of the project is the upgrading of the Gasboy software to the most current version. In addition to utilizing more current technology, the updated software will prove to be a useful resource for departments allowing them to view reports online at their discretion.

With the software upgrade there are also opportunities to improve the Gasboy reports' value:

- Fleet should work in conjunction with the Department of Budget and Management and County departments in determining how departments should be established in Gasboy to better budget and monitor fuel usage. This will be particularly beneficial for departments such as the Office of the Sheriff with several different divisions that are all regular users of fuel.

- Gasboy has a field for the employee's social security number when establishing an employee ID. This field is currently not in use. Fleet may be able to use this field for the employee's SAP employee ID. As the SAP ID is routinely used within the County to identify employees, having the number in Gasboy provides an easy confirmation to the user that they have the correct employee.

WE RECOMMEND that DPW continue to pursue capital funding for the Gasboy software upgrade.

II. Employees Are Using Gasboy Employee IDs of Other Employees

It appears that employees are using Gasboy IDs that are not assigned to them. An example is a DPW-Highways employee with 229 fuel transactions in 2012 – 124 of which were for Sheriff's Department vehicles, some of which occurred at days and times he was not working. Testing of over 1600 transactions showed that more than 10% of the transactions were for vehicles that were not in the employee's department.

Fuel use is billed to the departments through interdepartmental billings based on the fuel use by vehicle, so this does not have a financial impact; however employees should not be using Gasboy employee IDs that are not assigned to them. Employees should protect their Gasboy ID as they would their County computer log-on, and not share their ID with other employees. Employees should be cognizant that by sharing the Gasboy ID with another employee they may be held responsible for a transaction they did not initiate.

Fleet has the ability to print multiple reports from Gasboy. Accurate employee reports would allow Fleet to verify that the departmental vehicle fuel usage and employee usage reports are in agreement to verify accurate interdepartmental billings.

WE RECOMMEND that DPW include in their policy a statement prohibiting the use of Gasboy employee IDs by multiple individuals.

III. Total Fuel Use Decreased From 2011 to 2012

Fuel is the largest expense for Fleet Services. In 2011, the amount of diesel fuel dispensed was 248,658 gallons. For 2012, the amount of fuel decreased to 207,427 gallons – a decrease of 41,231 gallons, or 16.6%.

Unleaded fuel use also decreased for the same time period. 416,014 gallons of unleaded fuel was dispensed from county pumps during 2011. For 2012, the amount was decreased to 414,153 – a decrease of 1,861 gallons or 0.5%.

Fleet monitors the County's fuel usage very closely. A spreadsheet is maintained with each department's budgeted and actual fuel consumption. Variances are highlighted and evaluated. Fuel efficiency is always considered during the approval process for new vehicle acquisitions.

WE RECOMMEND that Fleet continue to monitor the County's fuel consumption and continue to purchase the most fuel efficient vehicles as practical.

Results of Exit Conference

An exit conference was held on October 7, 2013 with Fleet Services, DPW Management, and a representative from Budget and Management. The contents of this report were discussed. DPW was generally in agreement with our findings and recommendations. DPW was provided the opportunity to have their response included with this report but has decided against such. We request that management of DPW prepare a written response to our office and the County Executive concerning the findings and recommendations. The final response should be submitted to all parties copied on this report by November 8, 2013.

During the exit conference DPW advised us of some of the corrective actions they have taken based on our recommendations. Because these changes were implemented subsequent to the end of our fieldwork, we were unable to substantiate via testing. Fleet has purged the Gasboy Employee IDs for the thirty employees that left county service, purged the 102 Gasboy Employee IDs with no activity during 2013, and DPW has increased the physical security over the non-active Gasboy vehicle keys by creating a locked office for Fleet Services.

ERIE COUNTY COMPTROLLER'S OFFICE

cc: Hon. Mark. C. Poloncarz, County Executive
Robert W. Keating, Director of Budget and Management
John C. Loffredo, PE, Commissioner Department of Public Works
Erie County Fiscal Stability Authority

Appendix I – Gasboy Employee IDs by Department With Usage

Department	# of Employees with Gas Boy Access[2]	Total Fuel Transactions (gallons)	Average Fuel per Employee	# of IDs with No Fuel January 1 to July 22, 2013	# Active Gasboy IDs of Separated Employees[3]
Office of the Sheriff	183	114,211.230	624.105	9	3
DPW - Highways	124	114,510.170	923.469	3	2
Parks	56	31,769.330	567.309	2	3
Sewer District #3	45	13,705.890	304.575	8	2
Probation	40	1,303.190	32.580	19	0
Erie Community College	33	11,813.370	357.981	6	0
Sewer Districts #1, 4, & 5	31	9,103.200	293.652	6	5
DPW - Buildings & Grounds	30	3,222.620	107.421	8	0
Jail Management	25	5,730.270	229.211	12	5
Sewer District #6	21	5,610.040	267.145	0	1
Emergency Services	17	6,909.550	406.444	0	0
Sewer District #2	16	9,772.050	610.753	3	3
Erie County Libraries	12	6,476.360	539.697	2	0
District Attorney	11	3,594.740	326.795	0	5
Central Police Services	10	2,394.270	239.427	2	0
DPW - Weights & Measures	9	472.700	52.522	6	0
Social Services	9	999.940	111.104	5	0
Environment & Planning	7	1,168.640	166.949	4	0
Fleet Services	5	1,905.660	381.132	1	0
County Clerk	4	884.070	221.018	0	0
Health - Vector Control	4	2,284.000	571.000	2	0
Health	4	499.270	124.818	2	1
Board of Elections	2	401.640	200.820	1	0
Youth Detention	2	1,059.880	529.940	1	0
Health - Lab	1	351.880	351.880	0	0
Totals	**701**	**350,153.960**	**499.506**	**102**	**30**

[2] As of July 23, 2013
[3] Employees separated December 31, 2012 and prior