Office of the City Auditor

Citywide Fuel Expenditures
Fleet Services

Report 1 of 4

July 2013

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Table of Contents

Appendix

Executive Summary

We have conducted an audit of Citywide fuel expenditures. The City currently has three fueling operations overseen by the Fleet Services Bureau (Fleet Services), the Harbor Department and the Water Department. Due to the use of multiple fuel systems and the size and complexity of the fuel operations, the results of our audit will be communicated in a series of four reports. This is the first report of the four and focuses on the City's largest fuel operation, which is overseen by Fleet Services. Reports two and three will discuss results relating to the Harbor and Water Departments' fuel operations, respectively. The final report will explore the possibility of consolidating fueling operations Citywide. Therefore, numbers and examples discussed throughout this report pertain to the Fleet Services' fuel operation only, which encompasses the entire City's fuel use with the exception of the Water and Harbor Departments.

Fleet Services purchased 1.8 million gallons of fuel at a cost of approximately $5 million in fiscal year (FY) 2012. Fleet Services has used the EJ Ward fuel management system since 1997 to capture fueling transactions. Unfortunately, the current system configuration provides limited controls over the dispersal of fuel. Combined with a lack of adequate reporting and transactional review, the City is vulnerable to possible fraud and abuse.

Fleet Services uses fuel keys to control fuel access and register how fuel is distributed. However, multiple key types, inconsistent use of key status, and the ability to exceed parameter controls allows employees to fuel any vehicle, whether it is owned by the City or not. Both Fleet Services and User Departments recognize the importance of monitoring fuel operations, but they do not appear to have adequate staffing resources to ensure controls are sufficient or to consistently review fueling transactional data. Instead, they monitor their fuel cost from a budget perspective, identifying any significant fluctuations in each year. While the User Departments may remain within budget, they have no assurance the fueling charges are correct.

We understand Fleet Services is exploring a fuel system upgrade. For the upgrade to provide significant improvements over fueling operations, the City must first determine the most effective way to disperse fuel, whether that be through reconfigured use of fuel keys or other means, such as vehicle fuel rings, such as those used by the Harbor Department's fuel operation. Converting this same data and system structure to a new version of the software will likely only further exacerbate the issues. The City must also examine its policies and procedures to ensure there is adequate monitoring and analysis of the data.

The topic of consolidating systems will be explored more in the final report in our series of reports on Citywide fueling operations. Even if the City chooses not to consider consolidation, immediate action should be taken to develop adequate system and manual controls, reconcile billing reports, and establish meaningful reporting. Record level gas prices and User Department's budget challenges make it more important than ever that this valuable City resource be protected and used only as intended.

It is our understanding that Fleet Services made some system changes to address issues as they were communicated during the audit. We want to thank Fleet Services and the User Departments for their cooperation, and we appreciate their efforts and desire to improve processes to secure and safeguard City resources. We respectfully request that in one year management provide status of the progress made in implementation of the recommendations detailed in this report.

Background

The City of Long Beach (City) has three separate fueling operations. The Fleet Services Bureau (Fleet Services) within the Department of Financial Management oversees the fuel operations for all City departments except Water Department (Water) and Harbor Department (Harbor). Water and Harbor each have their own independent fueling systems that are operated and managed by their own departments. This report focuses on Fleet Services' fuel operations and thus, all numbers and examples discussed throughout the report pertain to Fleet Services only.

Administrative Regulation 4-5 (AR4-5) governs the fueling of fleet assets and states that the City's fuel system for unleaded, diesel, aviation, propane and liquefied natural gas is to be operated and maintained by Fleet Services. AR4-5 states that responsibility lies with Fleet Services to control the distribution of fuel to avoid product theft. User Departments bear responsibility to safeguard keys against misuse and to notify Fleet Services of lost keys and changes to billing charge points. However, the City's fueling is very complex and AR4-5 does not specify how to meet these responsibilities. Confusion seems to exist between Fleet Services and User Departments as to where responsibility lies for the different components. Further, the departments' ability to allocate sufficient resources to adequately maintain and manage fueling operations has decreased over the years.

Fleet Services' Fuel Operations

In fiscal year (FY) 2012, the City's Fleet Services' fuel operations purchased 1.8 million gallons of fuel at a cost of nearly $5 million. Table 1 shows fuel purchases over the last five fiscal years.

Table 1
City Fuel Purchases
Fiscal Year 2008 – 2012

Fiscal Year (FY)	Fuel Purchases (in Millions)
FY 2008	$ 5.842
FY 2009	3.910
FY 2010	4.384
FY 2011	5.167
FY 2012	4.928

Fuel is currently dispensed at 10 active City-run fuel sites. These fuel sites are located throughout the City at Police and Fire stations and near other City department locations, such as Fleet Services and Gas & Oil. Each City fuel site supplies one or more of the following fuel types: unleaded, diesel, and liquefied natural gas (LNG).

In addition to the City's fuel sites, there are two compressed natural gas (CNG) sites run by an outside vendor, Clean Energy. Although these sites are on City property, Clean Energy is the owner of the fuel stations. Fleet Services also purchases propane tanks from various vendors, and City boats and equipment are fueled at a non-City site in the Marina. Fleet Services is invoiced monthly for these types of transactions and they are manually input into the City's fuel management system, EJ Ward.

Departments are assigned City fleet assets, and they are responsible for the safe and effective operation of those fleet assets. The departments reimburse Fleet Services for all costs and associated overhead for services, fuel, or materials provided for assigned fleet assets. As illustrated in Table 2, User Departments consumed nearly 983,000 gallons of fuel in a six-month period under the fuel operation run by Fleet Services. Five departments make up 96% of this fuel usage: Public Works, Police, Fire, Parks, Recreation & Marine, and Gas & Oil (Top 5 User Departments). Our audit was limited to review of transactions for these Top 5 User Departments.

Table 2
User Departments
April - September 2012 Usage

User Department	Apr - Sept 2012 Usage (in Gallons)	Percentage of Total Usage
Public Works	494,400	
Police	280,000	
Fire	81,900	
Parks, Recreation & Marine	49,900	
Gas & Oil	42,200	
Subtotal Top 5 User Depts	**948,400**	**96%**
Other User Depts	34,400	4%
Total User Dept Usage	**982,800**	**100%**

As seen below in Table 3, during our six-month audit period, the Top 5 User Departments conducted nearly 54,000 transactions which accounted for 948,000 gallons of fuel at a cost of $2.5 million.

Table 3
Top 5 User Departments Fuel Usage
April – September 2012

Department	No. of Fuel Transactions	Fuel Quantity (in Gallons)	Cost
Police	26,700	280,000	$ 1,013,700
Public Works	16,800	494,400	894,800
Fire	4,500	81,900	296,300
Parks, Recreation & Marine	2,600	49,900	179,000
Gas & Oil	3,300	42,200	147,400
Total	**53,900**	**948,400**	**$ 2,531,200**

Fueling Methods

Fuel can be obtained for vehicles and equipment at City fuel sites and at specific non-City sites through physical fuel keys. There are three types of fuel keys: Vehicle Keys, Employee Keys, and Master Keys (Traditional Master and Site Master). The fuel key type determines what or who the fuel activity will be associated with. For example, Vehicle Keys are assigned to specific vehicles and Employee Keys are assigned to specific employees. Traditional Master Keys are assigned to a specific person or unit

4

and Site Master Keys are assigned to a specific pump or location. All key assignments strictly serve as a record-keeping function within the system. Regardless of the key type, there is no restriction at the pump to limit specific vehicles that can be fueled. All key types can fuel any vehicle, City owned or not.

Physical fuel keys can either be set to an active status or disabled status. The active status allows the fuel key to access fuel. The disabled status prevents the fuel key from accessing fuel. While the physical disabled keys cannot access fuel, the vehicle or employee assigned to the disabled key can continue to obtain fuel by using a different key or Site Master Key PIN number.

For vehicles and employees without a specific fuel key assigned to them, a record for that vehicle or employee is created in EJ Ward. Because they do not have a physical fuel key and cannot be assigned a specific key number, they are assigned an "N/A" status. This N/A status allows the vehicle or employee to be recognized by EJ Ward. The N/A status does not represent a physical fuel key, but rather a placeholder in the system that allows the vehicle or employee to access fuel with any fuel key.

In addition to physical fuel keys used at City sites, employees can access fuel at non-City sites such as CNG vehicles and boats/equipment fueled at the Marina. The City is invoiced monthly for these fueling transactions and Fleet Services manually enters the transactions into EJ Ward.

Table 4 shows active fuel keys only by fueling method and User Department.

Table 4
Active Fuel Keys Only
By Fueling Method and User Department
As of November 2012

User Department	Vehicle Keys	Employee Keys	Site Master Keys & PIN Numbers *	Traditional Master Keys
Public Works	469	45	94	5
Police	393	985	2	0
Fire	222	0	0	0
Parks, Recreation & Marine	219	1	0	0
Gas & Oil	192	0	0	0
Total	**1495**	**1031**	**96**	**5**

Included in the Site Master Keys are 11 active fuel keys and 85 PIN numbers assigned to employees that allow usage of the Site Master Key.

Fuel Management System

EJ Ward is the supplier of the City's fuel management system. EJ Ward keeps track of fuel keys and their associated transaction activity, including parameters, assigned department, and basic employee or vehicle information. Fleet Services has used the system since 1997. Table 5 shows that over the last three fiscal years, the City has made payments to EJ Ward for approximately $36,000 in software, technical support, and system repairs.

Table 5
Payments to EJ Ward
Fiscal Year 2010 – 2012

Fiscal Year	Amount Paid
FY 2010	$ 12,451
FY 2011	14,722
FY 2012	8,558
Total	**$ 35,731**

Additionally, Fleet Services uses the City's M4 system (M4) to track fleet assets and maintenance records. M4 is also used to bill the fuel transactions recorded in EJ Ward to the User Departments. A transfer of fuel data is made from EJ Ward to M4 daily. Each month, reports generated from M4 showing high level fueling activity for each vehicle are provided by Fleet Services to User Departments.

Objective & Methodology

The objective of our audit was to assess the appropriateness of the City's fuel expenditures. This report specifically focuses on our audit results related to the City's largest fuel operation, which is overseen by Fleet Services and is the first report in a series of four reports dealing with the City's fuel operations. Reports detailing results related to the Harbor and Water Departments' fuel operations will be discussed in reports two and three, respectively. The final report will explore the possibility of consolidation of the fueling operations. Our audit scope covered fuel transactions that occurred during April 1, 2012 through September 30, 2012 for the Top 5 User Departments. During our audit, we performed the following procedures:

- ➢ Reviewed applicable policies and procedures, including Administrative Regulation 4-5: *Operation, Acquisition, Maintenance, Refinement and Fueling of Fleet Assets,* to gain an understanding of critical processes and responsibilities;

- Interviewed Fleet Services personnel and staff from the selected user departments and obtained an understanding of the internal controls related to our audit objectives;
- Reviewed access to the fuel management database, EJ Ward, for appropriateness;
- Analyzed fuel transactions and fuel key records during the audit period and selected samples of records for further review; and
- Traced a sample of charge points between EJ Ward fuel transactions and M4 billing records.

Our audit results were based on our fieldwork for the Top 5 User Departments: Public Works; Police; Fire; Parks, Recreation and Marine; and Gas & Oil, which represent 96% of the fuel usage. Although fuel record analysis was performed on these five departments, overall purchases, contracts, system controls, and policies would apply to all user departments. Due to the high volume of fuel transactions and fuel keys our results are based on sample selections.

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

Results

Fleet Services Bureau (Fleet Services) purchased 1.8 million gallons of fuel at a cost of $5 million in fiscal year (FY) 2012. User Departments performed an estimated 112,000 fueling transactions in the same year. With this volume of activity, it is critical the City have a strong software system managing the transactions, along with solid internal controls and processes to ensure staff can account for all fuel usage. However, our audit found that neither the software system or existing internal controls and processes were effective in monitoring fuel usage, leaving the City vulnerable to possible fraud and abuse.

The fuel system, overseen by Fleet Services, was designed to provide inventory and parameter controls to manage how fuel is used; however, the controls, as configured, basically allow unlimited fuel usage. There is a lack of adequate system reports and review of transactional data to provide the City assurance that fuel expenditures are

appropriate. The system is primarily used only as a database to provide billing information to the User Departments.

Administrative Regulation 4-5 (AR 4-5) states that the City's fuel system for unleaded, diesel, aviation, propane and liquefied natural gas is to be operated and maintained by Fleet Services. AR 4-5 also assigns some specific responsibilities to the User Departments, such as the responsibility to safeguard fuel keys against misuse or misappropriation and to inform Fleet Services of changes in billing charge points. However, confusion seems to exist between Fleet Services and User Departments regarding responsibility for oversight, and communication is minimal.

Over the last several years, the departments' ability to adequately provide resources to ensure EJ Ward is properly configured, controls are established, and transactions are appropriately monitored has diminished. While all parties recognize the importance of monitoring fuel operations, they do not appear to be in a position to allocate more resources. The OCA will be issuing a subsequent report discussing the possibility of consolidating resources across the City to improve oversight of fuel operations and enhance system controls.

The following issues highlight problems resulting from the lack of departmental resources allocated to properly maintain and monitor fuel operations. While we cannot explore all the individual issues here, we have attempted to categorize the major issues into three categories:

> ➢ Fuel Keys Provide Limited Controls When Accessing Fuel
>
> ➢ System Parameters Do Not Necessarily Restrict Fuel Usage
>
> ➢ Fuel Expenditures Are Not Reconciled Prior to Billing

1. Fuel Keys Provide Limited Controls When Accessing Fuel

Fuel keys are used to limit access at the fueling station and monitor how fuel is dispersed. The City uses many different types of fuel keys making it difficult to track how fuel is accessed. In addition, the status assigned to each key, such as active or disabled, is not consistently updated to reflect actual usage.

During the six-month period we reviewed, the Top 5 User Departments conducted just under 54,000 transactions, using 948,000 gallons of fuel. Due to the complex nature of the fuel system structure and the various methods and access levels, it is hard to pinpoint an exact number of people who use the City's fuel, but we estimate it to be around 2,000. Fuel can be obtained for City vehicles and equipment at City tank sites

and at specific vendor sites through the following methods: Vehicle Keys, Employee Keys, Master Keys and via manual transactions.

Table 6 below provides a breakdown of the number of fuel transactions conducted, gallons dispensed, and associated cost of fuel used by the Top 5 User Departments for each fueling method. The Table shows the majority of fuel dispensed was via the Employee Keys.

Table 6
Fueling Methods & Activity Level
Top 5 User Departments
April - September 2012

Fueling Method	No. of Fuel Transactions	Fuel Quantity (in Gallons)	Cost
Employee Keys	34,920	638,600	$ 1,430,800
Vehicle Keys	18,230	300,000	1,067,100
Manual Entry	720	9,400	32,000
Master Keys *	30	400	1,300
Total	**53,900**	**948,400**	**$ 2,531,200**

* This includes Traditional Master Key activity only. Reports were not available for Site Master Keys. Therefore, Site Master Key activity may be included in another fueling method.

a. Key Assignment Controls Need Improvement

The different type of fuel keys noted in Table 6 all provide access to a fueling station, but do not limit which vehicle or equipment can be fueled. For example, a Vehicle Key is assigned to fuel a specific vehicle, but EJ Ward will not stop a person from using that key to fuel any other vehicle. The same is true for an Employee Key. The key is assigned to a specific employee giving him/her the ability to fuel any vehicle. It does not matter if the vehicle is assigned to another department, is no longer in use, or the City does not even own the vehicle. As long as a key remains active, it can access fuel.

Example:

➢ *Active fuel keys are meant to be used to fuel active vehicles/equipment in the City's fleet. However, 20% of active keys we tested for the Top 5 User Departments were either assigned to vehicles that have been sold, are no longer in use, or are duplicate keys. Even though these vehicles are inactive, their associated fuel keys are active and could be used to fuel any vehicle.*

o   ***Overall Result:*** *Fuel keys can be used to fuel any vehicle – City owned or not, increasing the risk of inappropriate usage.*

b. <u>*Increased Monitoring and Updating of Key Status is Needed*</u>

As discussed in the Background Section of this report, each fuel key is assigned a status, such as active or disabled. AR 4-5 states that fuel keys will be assigned to authorized users of fleet assets and that it is the User Department's responsibility to safeguard keys against misuse or misappropriation. Therefore, it is the departments' responsibility to know which of their employees have access to fuel and to manage that access to ensure use is appropriate. It is the responsibility of Fleet Services to make sure the key assignments are updated correctly in EJ Ward.

The Top 5 User Departments we interviewed do not have formal policies and procedures surrounding access to fuel and do not maintain an independent inventory list of the fuel keys assigned to employees of their department. While some communication may occur between the User Departments and Fleet Services as to the activating and disabling of fuel keys, the issues we identified with access and outdated key assignments indicate there is significant room for improvement. User Departments appear to completely rely on Fleet Services to manage the key assignments, while Fleet Services relies on User Departments to notify them of changes in key assignments that need to occur.

Further, a reconciliation or inventory of keys has not been recently performed. Based on our work, the key inventory is outdated and not reflective of actual fuel needs within the departments. Without an updated and accurate key inventory, it is difficult to identify if and when inappropriate activity occurs as illustrated in the examples below.

Examples:

➢   *Our sample testing found 17 active Employee Keys currently assigned to former City employees who have either retired or been terminated. We noted one former City employee who retired in May 2012, but still has an active fuel key assigned to them. Since May 2012, this fuel key was used 14 times to fuel approximately 152 gallons. Because the fuel key inventory is not reliable, it is difficult to determine if this is potential fraud or the fuel key has been reassigned but not updated in EJ Ward.*

➢   *Our sample testing noted nine active keys for vehicles that were not being maintained, indicating the vehicle was not in use. We also identified another*

19 active keys specifically associated with sold vehicles. Even though these vehicles are no longer in use, associated keys remain active and able to fuel other vehicles.

➤ *We also noted employees who have multiple ways to access fuel. For example, one employee has two Employee Keys that are both active.*

     o **_Overall Results:_** *Not updating and managing the fuel key status exposes the City to a high level of risk of unauthorized use of City resources.*

c. _Multiple Key Types and Key Status Make it Difficult to Adequately Track Fuel Usage_

The City's fueling system is complicated and clearly difficult to manage when combining the five different methods to access fuel (Vehicle Keys, Employee Keys, Traditional Master Keys, Site Master Keys, and manual entries) and the three different key status groups (active, disabled and N/A) with the volume of fueling activity that occurs. Since all the keys basically allow unrestricted fuel usage, the key configuration poses a challenge in determining how and what vehicle is actually being fueled.

For the Top 5 User Departments there are 540 disabled Vehicle Keys. According to Fleet Services, the Vehicle Key associated with a disabled status cannot be used. However, the vehicle associated with the disabled key can still be fueled by other means, such as another Vehicle Key, an Employee Key, or a Master Key. On the surface, this creates confusion because it appears as if the disabled key is accessing the fuel.

Example:

➤ *During the audit, we identified what appeared to be 26 disabled Vehicle Keys registering fueling activity. However, upon further investigation, we were able to determine the associated vehicles were actually fueled by other means. The system configuration made it appear as if the disabled keys fueled the vehicles.*

In addition to active and disabled statuses, a status of "N/A" can exist. N/A's are another way vehicles can be fueled without being assigned to a specific Vehicle Key. During our review, there were 1,254 N/A's for the Top 5 User Departments. The use of the N/A status makes it difficult to determine the actual method of fueling taking place.

Site Master Keys require a PIN number to access the fuel. Fleet Services asserted there are 62 physical Site Master Keys (11 active and 51 disabled) and 85 City employees in the Top 5 User Departments have PIN numbers that allow them fuel access with these keys. However, Fleet Services could not provide a report showing activity associated with these keys or PIN numbers.

- o **_Overall Results:_** _Due to the multiple key types and status methods used and limited available reports, analysis of fuel usage is very difficult._

2. System Parameters Do Not Necessarily Restrict Fuel Usage

The purpose of fuel system parameters is to restrict the use of fuel based on the user's need. Different parameters can be set for each fuel key. Table 7 below describes the parameters available in EJ Ward.

Table 7
EJ Ward Parameter Descriptions

Parameter	Restrictions
Maximum Quantity	Limits the amount of gallons that can be fueled in a single transaction.
Maximum Daily Visits	Limits the number of times a vehicle can be fueled per day.
Maximum Travel Distance	Limits the amount of miles the vehicle can travel between fueling.
Odometer Prompting	Works in conjunction with Maximum Travel Distance parameter to determine whether Maximum Travel Distance must be followed or if it can be overridden. 3 options allow Maximum Travel Distance to be overridden and 1 option does not allow it to be overridden.
Fuel Types	A first and second fuel choice are associated with each vehicle, the vehicle can only access those fuel types.

Ideally, having the capability to set parameters in the above areas would assist greatly with minimizing the ability to conduct unneeded fuel transactions. However, as illustrated in the examples below, we found most parameters are set in a fashion that actually would not stop inappropriate activity.

a. Certain Parameter Settings Increase Risk of Inappropriate Activity

Certain parameter settings can actually impose zero restrictions, such as a setting of "N/A", "All", "Unknown", or "Prompt". Out of our sample of 122 Vehicle Keys, 28 (23%) of the keys had a parameter setting that imposed zero

restrictions, allowing unlimited fuel usage. We also found that parameters do not apply for both Traditional Master Keys and manually entered fuel transactions. Unlimited usage on fuel distribution significantly increases the possibility of inappropriate activity.

b. *Parameters Are Not Consistent and Do Not Always Meet Vehicle's Needs*

The parameters for a key assigned to a specific vehicle should be set to match the vehicle's specifications, such as tank size. However, we found several instances where Vehicle Key parameters allow quantities that exceed vehicle tank capacities. In addition, there was a lack of consistency in parameters for similar fleet types. We found different parameters set for vehicles of the same make and model with the same tank capacity.

Examples:

➢ *We saw parameter settings for numerous vehicles of the same make and model that varied greatly. Specifically, there were 26 Ford Crown Victorias within our sample, all with a tank capacity of 19 gallons. However, the maximum quantity of fuel allowed per transaction parameter for these 26 vehicles all varied and ranged from 25 to 50 gallons per transaction. Table 8 illustrates five of the 26 Ford Crown Victorias and how the maximum quantity parameter and transaction volumes differ from the actual tank capacity.*

Table 8
Ford Crown Victoria Comparison
Tank Capacity vs. Parameter vs. Highest Transaction (in Gallons)

Vehicle No.	Make/Model	Vehicle Tank Capacity	Parameter Maximum Quantity	Highest Transaction Apr - Sep 2012
18450	Ford Crown Victoria	19	N/A	32
18520	Ford Crown Victoria	19	50	50
18609	Ford Crown Victoria	19	35	31
17563	Ford Crown Victoria	19	30	17
18427	Ford Crown Victoria	19	25	25

c. *System Parameters Can Be Exceeded*

For fuel key parameter settings that appeared to be reasonable, we sampled 122 fuel keys to determine if the system parameter was working as designed. In 50% of our sample, a parameter was exceeded. In addition, almost all of the

parameters described in Table 7 had at least one occurrence where it was exceeded.

The parameters monitoring maximum travel distance and odometer readings work together to limit fueling. For each fueling transaction, the vehicle's current odometer reading is manually entered by the user into a keypad at the pump. Miles driven since the last fueling transaction is one indicator that a transaction is reasonable or not. As shown in Table 9, we identified over 6,000 transactions during the six-month audit period that recorded negative mileage, no change in mileage, a blank odometer reading, or more than 1,000 miles since the vehicle's last fueling. Fleet Services stated these transactions were caused by input errors at the pump and required a manual override to allow the transaction. However, there is no report available evidencing the manual overrides. Given that no one monitors the individual fueling transactions nor maintains documentation, we are unable to determine the root cause of these questionable high risk transactions.

Table 9
Unusual Odometer Readings
April – September 2012

Actual Change in Odometer	No. of Fuel Transactions	Fuel Quantity (in Gallons)	Cost
No Change in Mileage	2,960	59,858	$ 142,985
Negative Mileage Change	1,815	27,530	92,890
Excessive Mileage Change (> 1,000 miles)	805	13,826	49,325
Blank Odometer Input	631	11,342	42,724
Total	**6,211**	**112,556**	**$ 327,924**

Examples:

➢ *Vehicle Key #305 has a maximum travel distance parameter setting of 500 miles. On September 29, 2012, fueling was allowed with this key even though a 94,527 mileage change in odometer reading was input by the user.*

➢ *Vehicle Key #17469 has a maximum travel distance parameter setting of 200 miles. On June 15, 2012, fueling was allowed with this key even though a negative 64,800 mileage change in odometer reading was input by the user.*

➢ *Vehicle Key #1201 has a parameter restricting the number of times the Vehicle Key can fuel in one day to five. However, we found this Vehicle Key was allowed to fuel eight times within one day.*

o *__Overall Result:__ Although parameters are designed to control the usage of fuel, not all settings appear to meet vehicle needs. In addition, our testwork found that most parameters could be exceeded. Fuel transactions are not monitored on a timely basis, if at all, and no available reports exist to identify transactions where parameters were exceeded or manual overrides occurred.*

3. *Fuel Expenditures Are Not Reconciled Prior to Billing*

There are two systems involved in the management of the City's fleet and fuel use. EJ Ward is the primary fueling system and houses the raw fuel transactions, fuel key inventory, parameter information, and basic employee and vehicle information. M4 is the City's primary fleet management system and is used to track fleet assets and associated maintenance records. Fuel transaction data transmits from EJ Ward to M4 on a daily basis. M4 then serves as the primary billing system to charge User Departments for their associated fuel use.

User Departments receive monthly M4 reports from Fleet Services that provide a summary of fuel expenditures by vehicle number. Transactional data is not provided. User Departments monitor their fuel cost from a budget perspective to identify significant fluctuations that may occur from one budget year to the next. However, there is no review of transactional level detail to ensure charges are appropriate.

The automatic interface of fueling data between the two systems is only one way – from EJ Ward to M4. Changes to data in the system, including changes in billing charge points, are made by Fleet Services in the M4 system and may not be manually updated in EJ Ward. Fleet Services indicated they also update EJ Ward information to coincide with M4; however, a reconciliation of the two systems has not occurred and differences in data were noted in the review of billing costs.

The Index Code associated with the vehicle in M4 determines the charge point for vehicle's use of fuel. We compared vehicle Index Codes in both M4 and EJ Ward and found instances where Index Codes for the same vehicle differed. In some instances, the Index Codes pointed to two different User Departments. We also found vehicle fueling transactions in EJ Ward that do not appear to be recorded in M4.

Example:

➢ *Per EJ Ward, Vehicle #12356 points to the Department of Parks, Recreation and Marine (PRM). However, in M4 this same vehicle is assigned an Index Code that points to Gas and Oil. Index Codes for Vehicles #13172, #17609, and #17610 also point to PRM, but in M4 the vehicles are assigned an Index*

Code pointing to the City Manager. All of these vehicles incurred fueling transactions.

- o ***Overall Results:*** *Transactional information and Index Codes in the two systems do not appear to always agree, which could result in incorrect charges to User Departments. While departments may be monitoring their fuel usage from a budgeting perspective, they are not reviewing transactional detail to ensure appropriate charges are being billed.*

Recommendation

Fleet Services has been using the EJ Ward fuel management system since 1997 and recognizes that a system upgrade is needed. For this upgrade to provide significant improvements over fuel operations, the City cannot convert the current configuration or database. As detailed in this report, the method for which the City is currently using fuel keys opens the City to possible fraud and abuse. A complete over-haul of fuel operations is needed.

In addition to the fuel system overseen by Fleet Services, other fuel systems are managed by the Harbor and Water Departments. Our final report on Citywide fuel operations will discuss the possibility of consolidating resources to provide efficiencies in system costs and shared allocation of dedicated personnel to monitor controls and transactional data.

Given the magnitude of the issues we detailed in the audit, Fleet Services should take immediate action to improve controls surrounding fuel access to reduce the risk of abuse and fraud. Areas we recommend be addressed include, but are not limited to:

- ➢ Determine the most effective way to disburse fuel, whether it be through the reconfigured use of fuel keys or through other means, such as vehicle fuel rings, which are used by the Harbor Department's fuel operation.

- ➢ Reconcile the existing fuel key inventory against actual User Department needs to ensure current access to fuel is appropriate and needed to perform a City service.

- ➢ Establish appropriate system parameters based on user needs and vehicle specifications, limit the ability for users to exceed the parameters, and monitor activity to ensure transactions occur within reasonable parameters.

➢ Reconcile billing information in both EJ Ward and M4 systems to ensure User Departments are being billed for the appropriate amount of fuel usage.

➢ Develop system reports to identify such things as system overrides, unusual transactions, and system edits. Review these reports timely and follow up on occurrences that require further explanation to ensure they were necessary and justified.

Record-level gas prices and User Departments' budget challenges make it more critical than ever that efforts be exhausted to ensure the City's valuable resource is protected and used only as intended.

Appendix A

Management's Response

Date: June 25, 2013

To: Laura Doud, City Auditor

From: John Gross, Director of Financial Management

Subject: **MANAGEMENT RESPONSE TO CITYWIDE FUEL EXPENDITURES AUDIT**

Management concurs with recommendations of the audit with regard to fuel expenditures in fleet services and the fuel management system and its operation. Management concurs with the audit's recommendations to upgrade the current outdated computer system and to review the manner in which the fuel management system is operated. While it is important to note that the audit did not detect any losses, Management believes that the audit shows that budget cuts over the years have weakened the fuel management system controls. Improvements are needed to lower the risk of future loss.

Over the last ten years, the City has been reducing administrative costs in order to minimize the need for cuts to basic services such as police, fire and street maintenance. Fuel management is a pure administrative function as it serves no operational purpose. Its sole purpose is administrative and it serves as a control against improper use and theft and also provides an accounting function so that the proper departments can be charged for their respective fuel usage. The status of the fuel management system is illustrative of the impact that the last ten years of budget cuts have had on the City's control environment. While control functions are important, the City budget has, in the past, placed a higher priority on maintaining basic services than expenditures on administrative functions and controls.

Subsequent to the time period of the audit, new Management is now in charge of Fleet Services. The new Management has already begun reviewing the issues identified in the audit, the fuel management system and its processes to determine what improvements can be accomplished with the resources currently available. The review is being done in the context of the balancing of the cost of enhanced control versus the risk of loss and severity of potential losses. Management expects to be able to make some significant improvements without the need for additional funding. In addition, Management has already included in the budget (prior to the audit) a recommendation for an upgraded fuel management system.

Management appreciates the work by the auditor as the audit has provided Management a jump-start on the review of the fuel management system. In terms of a response to the specific recommendations of the audit, Management's comments are as follows:

> ➢ *Determine the most effective way to disburse fuel*
> We concur. An overall review has not been done in some time. A major system upgrade has been budgeted for FY 14. Now is an excellent time to do a review.

> ➤ ***Reconcile the existing fuel key inventory***
> We concur. An inventory has not been done in some time. We expect that we will do far more than just an inventory.

> ➤ ***Establish appropriate system parameters***
> We concur. We believe that it is appropriate to review system parameters, especially as part of a system upgrade. We expect the review will be part of a larger overall effort to develop the most cost effective approach to fuel management.

> ➤ ***Reconcile billing information***
> We concur with the intent. We believe that it is appropriate to review the approach of transferring information between systems. We will determine the steps to be taken to address potential issues, if there are any, after the review of the data transfer files is completed.

> ➤ ***Develop System Reports***
> We concur that additional system reports should be developed. Many of the new reports will probably be developed in conjunction with the installation of the updated fuel management system, which is expected to have much improved reporting capability.

JG:JG
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CC: PATRICK H. WEST, CITY MANAGER
SUZANNE FRICK, ASSISTANT CITY MANAGER