



# County of Riverside

## INTERNAL AUDIT REPORT

2010-003

### Purchasing and Fleet Services County Vehicle Fuel Usage

June 7, 2010

Office of  
**Robert E. Byrd, CGFM**  
County Auditor-Controller

4080 Lemon Street  
P.O. Box 1326  
Riverside, CA 92502-1326



**COUNTY OF RIVERSIDE  
OFFICE OF THE  
AUDITOR-CONTROLLER**

County Administrative Center  
4080 Lemon Street, 11<sup>th</sup> Floor  
P.O. Box 1326  
Riverside, CA 92502-1326  
(951) 955-3800  
Fax (951) 955-3802



**COUNTY OF RIVERSIDE  
AUDITOR-CONTROLLER  
Robert E. Byrd, CGFM  
AUDITOR-CONTROLLER**

**Bruce Kincaid, MBA  
ASSISTANT  
AUDITOR-CONTROLLER**

June 7, 2010

Robert J. Howdyshell, Director  
Purchasing and Fleet Services  
2980 Washington Street  
Riverside, CA 92504

**Subject: Internal Audit Report 2010-003: Purchasing and Fleet Services,  
County Vehicle Fuel Usage**

Dear Mr. Howdyshell:

We have completed an audit of Fleet Services to provide management and the Board of Supervisors with an independent assessment of the adequacy and effectiveness of internal controls over county vehicle fuel usage. We performed the audit between September 1, 2009, and January 31, 2010, covering the period September 1, 2008, through August 31, 2009.

We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing. These standards require that we plan and perform the audit to obtain reasonable assurance that our objective as described in the preceding paragraph is achieved. An audit includes examining, on a test basis, evidence about the adequacy and effectiveness of internal controls, compliance with applicable laws and regulations, and performing other procedures we considered necessary. We believe the audit provides a reasonable basis for our conclusion.

Internal controls are processes designed to provide management reasonable assurance of achieving operational efficiency, compliance with laws and regulations, and reliability of financial information. Management is responsible for establishing and maintaining adequate internal controls; our responsibility is to assess the adequacy of internal controls based upon our audit.

Internal controls over county vehicle fuel usage are not adequate. The current fuel system and processes are designed mainly for billing purposes and do not provide complete and accurate fuel data and controls suitable for effective monitoring of fuel usage. Fleet Services management has indicated that it is considering acquiring a new fuel management module that will integrate with its existing fleet management system in order to improve monitoring fuel usage.

We discussed the results contained in this report, as well as comments and suggestion of lesser significance, with the appropriate level of management in the course of the audit.

We thank the Purchasing and Fleet Services' management and staff for their cooperation during the audit.

Robert E. Byrd, CGFM  
County Auditor-Controller

A handwritten signature in cursive script that reads "George C. Tabora".

By: George C. Tabora, CPA  
Audit Manager

cc: Board of Supervisors  
Grand Jury

## Table of Contents

	Page
<b>Executive Summary.....</b>	<b>1</b>
<b>Results</b>	
<b>Fuel Monitoring .....</b>	<b>5</b>
<b>Fuel Credit Cards .....</b>	<b>9</b>
<b>Alternate Fuel Vehicles (AFV) .....</b>	<b>11</b>
<b>Purchasing and Fleet Services Management Reply.....</b>	<b>Appendix</b>

**Executive Summary**

**Audit Objective**

Our audit objective is to provide management and the Board of Supervisors with an independent assessment of the adequacy and effectiveness of internal controls over county vehicle fuel usage.

**Overview**

Fleet Services operates as an Internal Service Fund. One of the services it performs is fuel distribution to provide an economic source of vehicle fuel for the county including various schools and cities. In addition to Fleet Services, County Fire, Waste Management, and Transportation departments maintain and distribute fuel but mainly for their own operations.

Fleet Services supports its operations by billing fuel users the cost of fuel plus a markup of \$0.11 per gallon for fuel dispensed from Fleet Services' fueling facilities and \$0.05 per gallon for fuel dispensed from commercial fueling stations and two other government agencies. Fuel billed for one year period, September 1, 2008, through August 31, 2009, is presented below.

**Fuel Billed  
 Period September 1, 2008, through August 31, 2009**

<b>Fuel Dispensed By Location</b>	<b>Ave. Price Per Gallon</b>	<b>Gallons Dispensed</b>
Fleet Services' fueling stations	\$ 2.35	2,941,313
Commercial Fueling Network <sup>1</sup>	2.48	247,679
Voyager Fuel Card outlets <sup>2</sup>	2.60	111,524
Non-county agencies <sup>3</sup>	2.90	19,120
Average Price Per Gallon/Total Gallons	\$ 2.37	3,319,636
<b>Sales By Product Type</b>	<b>%</b>	<b>Gallons Dispensed</b>
Unleaded	98.7%	3,276,862
Diesel	0.7%	23,920
Ethanol	0.6%	18,854
<b>Fuel Dispensed By Number of Vehicles</b>	<b>%</b>	<b>Vehicle Count</b>
Fleet Services-owned Vehicles	84.6%	4,589
County Department-owned Vehicles	8.6%	469
Other Agency-owned Vehicles	6.8%	371
Total Number of Vehicles		5,429
<b>Total Amount Billed</b>		<b>\$ 7,861,836</b>

<sup>1</sup>Fuel purchased from independently-operated card-locked fueling stations.

<sup>2</sup>Fuel purchased from gas stations using Voyager credit cards obtained through Fleet Services.

<sup>3</sup>Fuel purchased from City of Palm Springs and Hemet MWD.

Fleet Services operates ten fueling stations located throughout the county. In addition, arrangements were made with the city of Palm Springs and Hemet Metropolitan Water District enabling authorized county vehicles to dispense fuel from these agencies' fueling facilities.

### **Fuel Monitoring**

The county's fleet averages 15.6 MPG. An opportunity exists for saving \$223,000 for every one MPG improvement or a total of \$2.1 million per year by increasing the average to 25 MPG. Board Policy D-2 (Use and Purchase of County Vehicles) since 2008 sets a minimum 25 MPG for new vehicle acquisitions. Constant advances in automotive technology have been generating more fuel-efficient vehicles every year; there are newer models rated better than 25 MPG. As of August 31, 2009, Fleet Services owned 318 hybrid vehicles which averaged 33.1 MPG. However, improvements brought about by these new fuel-efficient vehicles are yet to show a positive impact on the fleet's overall average MPG rating because of the offsetting impact of less fuel-efficient vehicles. Limitations in the current fuel system, discussed in detail under Finding 1, are impacting management's ability to effectively monitor fuel efficiency and address instances requiring corrective action.

### **Fuel Credit Cards**

Board Policy A-62 (Credit Card Use), effective April 14, 2008, prohibits county employees from maintaining and using fuel credit cards other than the county-awarded fuel credit cards. Certain departments continue to maintain and use their own fuel credit cards. We estimate over 600,000 gallons of fuel were purchased with the use of these cards during the one-year period of September 1, 2008, through August 31, 2009. These fuel purchases are not recorded in the county's fuel system; as a result, a number of vehicles' fuel data are actually understated. This affects the county's ability to effectively monitor fuel usage and the ability to possibly obtain more favorable fuel pricing. In order to maximize cost savings, we are recommending that County Purchasing and Fleet Services work with the Executive Office to enforce Board Policy A-62 directing departments to use county-awarded fuel credit cards. ]

Fleet Services also provides Commercial Fuel Network (CFN) cards enabling cardholders to obtain fuel from any of the CFN member's card-activated fueling stations. Approximately 248,000 gallons of fuel were purchased using CFN cards during the one-year period of September 1, 2008, through August 31, 2009. CFN fueling stations, which are unmanned and accessible 24/7, are used primarily by the Sheriff Department for fueling patrol vehicles. This report discusses significant

internal control deficiencies over CFN fuel card transactions which must be mitigated.

### **Alternative Fuel Vehicles**

As of August 31, 2009, Fleet Services' records showed the fleet was comprised of 29 percent alternative fuel vehicles acquired in line with the county's policy of using low or zero emission vehicles. These include 911 flex-fuel vehicles which are designed to use pure gasoline or E85 (ethanol-blended gasoline). However, these flex-fuel vehicles are rarely fueled with E85; thus, the county is not yet achieving the goal for having acquired these low emission vehicles. Plans are underway to expand the availability of E85 from one fueling station to a total of five fueling stations by the end of 2010. The higher cost to operate E85-fueled vehicles, considering the present economic situation, could potentially deter users from switching to E85. Its expanded use may need to be supported by a countywide initiative and a board directive.

### **Other Matters**

The following are matters, outside the scope of our audit, which came to our attention and may be of value for management to consider:

- Ford announced that the production of Crown Victoria patrol will be discontinued in 2011. This vehicle is widely used by the law enforcement community including Riverside County but has been losing market share in recent years due to competition from new models of fuel-efficient patrol vehicles. According to Ford, the replacement for the Crown Victoria patrol will be built based on a fuel-efficient Ford Taurus platform and will be available starting 2012. The county has over 900 patrol vehicles with fuel efficiency averaging 10.9 MPG. This could be an opportune time for the county to investigate other patrol car models as other law enforcement agencies have already started doing. We recommend Fleet Services coordinate with Sheriff and County Purchasing departments to start the process as early as possible for evaluating potential patrol vehicle replacements. This will allow the county more time to select the best suitable patrol vehicle.
- The county paid \$320,000 more for fuel purchased at retail prices using Voyager and CFN fuel credit cards compared to the county's bulk fuel pricing. In addition to higher cost, further controls are also required to mitigate the risks inherent to the use of fuel credit cards. It is conceivable that some of the costs associated with using fuel credit cards may be recaptured by building a fueling facility accessible to the majority of the fuel credit card users. It is also possible that some employees are

simply not patronizing the county fueling facilities. We recommend Fleet Services perform a study and implement measures to maximize the use of county fueling facilities.

**Audit Methodology** We performed the following in assessing the adequacy and effectiveness of internal controls over vehicle fuel usage:

- Gained an understanding of the codes, regulations, and county policies.
- Interviewed staff to obtain an understanding of the current process and practices affecting fuel procurement, fuel distribution, and billing.
- Completed an assessment of risks affecting fueling activities.
- Observed fueling activities at four fueling stations.
- Evaluated the fuel system controls concerning validation of users and vehicles, and monitoring of vehicle usage.
- Performed an analytic review of financial and operational data.
- Tested the propriety of fuel transactions.

**Conclusion** Internal controls over county vehicle fuel usage are not adequate. The current fuel system and processes are designed mainly for billing purposes and do not provide complete and accurate fuel data and controls suitable for effective monitoring of fuel usage. Fleet Services management has indicated that it is considering acquiring a new fuel management module that will integrate with its existing fleet management system in order to improve monitoring fuel usage.

**Results**

**Fuel Monitoring**

Fuel transactions are controlled using FuelForce, a fuel management system owned by the Transportation and Land Management Agency (TLMA) and co-administered by Fleet Services. FleetFocus, the system which Fleet Services owns and uses for managing its fleet operations, downloads the fuel data from FuelForce to generate billings to the departments.

A fueling station typically has two tanks with the capacity to hold 10,000 to 12,000 gallons of fuel per tank. All fueling stations use an electronic system to monitor the tank's fuel level and each station is responsible for replenishing stock when fuel balance falls below 2,000 gallons.

A county employee assigned a vehicle is granted access to county fueling facilities. An employee driving a Fleet Services' rental vehicle is also granted fuel access so that the employee may refuel the vehicle before returning it. Before fueling, FuelForce prompts the driver to enter Driver ID number, vehicle ID number, vehicle odometer reading, and pump number through a keypad set near a fuel pump. The system validates the Driver ID, Vehicle ID, and odometer reading against established parameters.

Fuel prices are set for every fueling station based on the delivered price plus a board-approved markup. The price per gallon differs for every fueling station due to daily cost fluctuations and delivery charge. Fuel is billed together with the monthly maintenance and equipment charges. Mileage-based charges are determined from odometer readings keyed in by drivers at the fueling stations and by the shop staff when the vehicles are brought in for service. When an odometer reading is not available, the department is requested to provide it.

The average fuel usage of vehicles owned by Fleet Services based on available data for the one-year period of September 1, 2008, through August 31, 2009, was 15.6 MPG, broken down as follows:

Vehicle Type	MPG
Patrol	10.9
Hybrid vehicles	33.1
All others	18.4
Weighted Average	15.6 <sup>4</sup>

<sup>4</sup>Average weighted down by the high number of patrol vehicles' 10.9MPG.

We observed four fueling stations—Orange Street, Moreno Valley, Indio and Murrieta—each for a full day. There were 380 vehicles that obtained fuel during our observations. We recorded the following data

for each vehicle that dispensed fuel: transaction date and time, pump number used, vehicle ID, license plate, vehicle type, driver's name, employee ID number, and department. We validated the data we recorded during our survey with the data that the users entered in the system.

---

**Finding 1**

Based on our observation of four fueling stations on September 24, 2009, and October 1, 2009 (each station was observed for approximately eight hours without interruption), weaknesses in the system's validation process were noted:

- Five employees entered employee ID numbers different from their own IDs in the system. One of the five IDs used belonged to a retired employee.
- One employee entered a vehicle ID different from the ID of the vehicle that was fueled.
- Two employees, each fueling a different vehicle, used the same Driver ID number.
- One employee did not reset the pump after fueling and let another employee continue to dispense fuel on a second vehicle. This occurrence is possible because the established system parameters allow fuel dispensed to exceed the vehicle's fuel tank capacity.

During the course of our audit, we further noted:

- A process is not in place to deactivate terminated employees' driver IDs in a timely manner.
- One hundred thirty (3.6%) of 3,639 vehicles with mileage readings had "miles billed" that did not equal "miles used," this condition signifies adjustments were made to correct prior odometer reading errors. Twenty-five of these corrections ranged between 2,000 to 13,000 miles.
- Four hundred sixty-eight (13.0%) of 3,583 vehicles reviewed had fuel usage greater than the average fuel consumption of vehicles within the same class by 25 percent or more. Since vehicle fuel efficiency is not monitored, questionable fuel usages are not reported to the departments for review and resolution.
- One driver's ID was used by several department employees.

- Seven of ten fueling stations did not have security cameras.

The control deficiencies we noted were mainly related to the following limitations in the current fuel system:

- The current system does not maintain an audit trail of changes to system data. Anyone who has access to the fuel system may set up new users and change system parameters. This internal control weakness is exacerbated because the fuel system is shared with TLMA and Waste Management and staff from both departments with system access may change system parameter settings as well.
- The current system does not allow assignment of security roles and segregation of duties. Some employees due to their assigned roles may need to fuel multiple vehicles in a single day (service technicians and motor pool personnel as examples). Since the system does not distinguish differences in roles, all fuel users are provided similar unlimited fuel access by default.
- User access to the fuel system is through a keypad allowing a user to manually enter any valid Driver ID (usually the same as Employee ID) and vehicle ID. Vehicle and assigned driver are not cross-validated and matched. Since these two data are readily obtainable, the system weakness could be easily exploited.
- The odometer reading is manually entered through a keypad: system parameters are set to allow for wide variances in odometer readings to limit the number of rejected fueling requests.
- A process is not in place for updating user data for changes in employee status such as departmental transfers and terminations.

Based on the results of our observation, review and analysis, the system and processes do not provide adequate assurance that unauthorized transactions are prevented or detected and accurate vehicle data are collected. As a result, the integrity of the vehicle data and transactions that are maintained by the current system are of major concern.

**Management Reply**

**Concur.** Fleet Services concurs that County employees familiar with the fueling system may find ways to work-around validation controls. These failures to follow validation rules are overwhelmingly motivated by perceived convenience rather than by intent to misallocate fuel to County vehicles. Fleet Services sees very little fuel inventory shrinkage and the audit findings appear to confirm nominal inventory shrinkage. When the audit team was specifically asked if they found evidence of theft of fuel, they said "no."

**Auditor's Comment** As stated under Finding 1, four hundred sixty-eight (13.0%) of 3,583 vehicles reviewed had fuel usage greater than the average fuel consumption of vehicles within the same class by 25% or more. Although the audit did not find evidence of theft, the internal controls in place are not adequate to mitigate the risk of theft. The department concurred in developing fuel usage standards so that deviations such as the ones stated under Finding 1 could be reviewed and corrected if required (see Recommendation 1.3).

**Recommendation 1.1** Improve the process for authenticating users and collecting vehicle data. System controls should adequately ensure that only authorized vehicles are dispensed fuel and accurate data are collected and processed. Evaluate if the current system could be upgraded to mitigate the internal control weaknesses noted. If the current system cannot be upgraded, a new system capable of automated vehicle identification and data gathering capabilities should be considered.

**Management Reply** **Concur.** The current system cannot be upgraded to address noted system weakness. Changes recommended will require obtaining and adapting new technology that allows a hands-off approach in obtaining complete and accurate fuel and mileage data. A current "best practice" solution requires hardware at each fuel island and on each vehicle, and also requires new fuel system software and related support. Automating vehicle information collection is possible but it is costly.

**Recommendation 1.2** Develop and implement procedures for promptly updating driver data for employment status changes such as departmental transfers and terminations.

**Management Reply** **Concur.** Fleet Services will work with Auditor-Controller and OASIS to obtain an initial list of current County employees and a by-weekly list of all employee terminations and transfers.

**Recommendation 1.3** Develop county standards for managing county vehicle fuel usage. Implement procedures for monitoring and reporting vehicle fuel usage to county departments, including a process for resolving issues requiring corrective actions.

**Management Reply** **Concur.** Fleet Services is developing mileage standards for each type of vehicle and will report to the using department any large variance plus or minus from these standards.

**Recommendation 1.4** Install security camera/s to monitor activity at each fueling station.

**Management Reply** **Concur.** Fleet Services will install security cameras at six fuel sites that currently are not monitored when funding is available.

**Results**

**Fuel Credit Cards**

---

In accordance with Board Policy A-62 (Credit Card Use), Fleet Services provides county-awarded fuel credit cards to county departments to be used when a vehicle is unable to refuel from a county fueling station due to distance or time, or when public safety-related emergency is involved. Fleet Services has 994 active Voyager and 456 active CFN credit cards. Voyager credit cards are assigned to vehicles while CFN credit cards are assigned to individual employees and may be used for any county vehicle.

---

**Finding 2**

Board Policy A-62 (Credit Card Use), effective April 14, 2008, prohibits county employees from maintaining and using fuel credit cards other than the county-awarded fuel credit cards. Certain departments continue to maintain and use their own fuel credit cards, purchasing over 600,000 gallons of fuel during the one-year period of September 1, 2008, through August 31, 2009. Fuel purchased through these cards is not recorded in the county's fuel system; as a result, a number of vehicles' fuel data are actually understated. This affects the county's ability to effectively monitor fuel usage and, possibly, obtain the most favorable fuel price.

**Management Reply**

**Concur.** Fleet Services will work with the Executive Office, Auditor-Controller, and other departments to ensure all fuel purchased for Fleet Services vehicles is recorded in the Fleet Services management system.

**Recommendation 2**

Coordinate action with the Executive Office and department management to centralize the administration of all Voyager fuel cards through Fleet Services. These include Voyager fuel cards that are currently maintained by the departments on their own account. This will ensure that all fuel usage can be properly and centrally recorded, monitored, and reported by Fleet Services.

**Management Reply**

**Concur.** Fleet Services strongly agrees that all fuel purchased for Fleet Services vehicles must be recorded in the Fleet Services fuel system and that all Voyager card fuel purchases for Fleet Services vehicles must be coordinated with Purchasing and Fleet Services. Fleet Services will work with the Executive Office and the Auditor Controller to insure that happens.

---

**Finding 3**

Odometer readings entered by drivers at Voyager and CFN fueling pumps are not system-validated and contain excessive errors and omissions preventing Fleet Services from using the data to monitor fuel usage. This internal control weakness is exacerbated especially for

CFN transactions because CFN cards are issued to drivers and not linked to specific vehicles. At times, CFN transactions cannot be identified to specific vehicles such as when vehicle ID entry is omitted or erroneous.

**Management Reply** **Concur.** Fleet Services agrees with the audit findings.

**Recommendation 3.1** CFN credit cards should be linked to specific vehicles rather than employees.

**Management Reply** **Concur.** Fleet Services agrees with the audit findings.

**Recommendation 3.2** Develop and implement procedures to use Voyager and CFN transactions data for monitoring fuel usage. In order to facilitate this, validate odometer readings and other vehicle data off-line before uploading them to Fleet Services' system. This off-line validation is necessary since real-time validation of Voyager and CFN transactions is not doable using the existing system. In conjunction, notify departments of exceptions noted during validation and reinforce the need for drivers to input accurate data.

**Management Reply** **Concur.** Fleet Services has had off-line mileage validation steps in place for many years. Pre-billing mileage verification can be established.

---

**Finding 4** CFN transactions totaling \$18,144 for the period April 1, through April 15, 2009, were uploaded to FuelForce and processed twice resulting in duplicate billings to the departments. This was corrected in January 2010 after an internal audit. Fuel dispensed for the first six months at a newly opened fueling facility was not billed until the seventh month when the omission was discovered by Fleet Services IT staff. Existing internal controls did not prevent or detect these occurrences timely.

**Management Reply** **Concur.** The CFN billing error in question was a one-time occurrence with a new vendor. The billing error was corrected and a control to prevent further occurrences is in place.

The omission of billing was attributed to a new fuel site. Controls are in place to prevent new sites from being overlooked.

**Recommendation 4** Develop and implement procedures to ensure that fuel transactions are processed timely and accurately.

**Management Reply** **Concur.** Controls are in place to ensure data from each fuel site is downloaded to the Fleet Services central database prior to monthly billing.

**Results**

**Alternative Fuel Vehicles (AFV)**

---

In 1998 the Board of Supervisors amended Board Policy D-2 (Use and Purchase of County Vehicles) requiring the use of low or zero emission vehicles, whenever practical, to improve air quality in Riverside County and address air quality regulatory requirements. The policy was further amended in 2008 directing county departments, when purchasing new vehicles, to acquire Hybrid or other fuel efficient models with a minimum 25 miles per gallon (MPG) EPA rating.

The vehicle fleet includes 911 flex-fuel vehicles which are capable of using gasoline or E85 fuel (gasoline blended with up to 85% ethanol). E85 is less than one percent of total fuel dispensed. E85 is available from one county fueling station, expanding to five stations by the end of 2010.

---

**Finding 5**

Flex-fuel vehicles are rarely fueled with E85; thus, the county is not achieving the goal of having acquired these flex-fuel vehicles to help improve air quality. Although the price of E85 fuel is lower than gasoline, the cost of operating a vehicle with E85 fuel at current prices is higher because E85-fueled vehicles get 20 to 30 percent fewer miles per gallon. The higher cost, considering the present economic situation, could potentially deter users from switching to E85. Its expanded use may need to be supported by a countywide initiative and/or a board directive.

**Management Reply**

**Concur.** Recommended use of E85 is in flux. Fleet Services will continue to monitor Federal and State recommendations regarding use of E85.

**Recommendation 5**

Sponsor an amendment to Board Policy D-2 (Use and Purchase of County Vehicles) to include clear guidelines regarding the use of E85 fuel.

**Management Reply**

**Concur.** Fleet Services will continue to monitor the trends in alternative fuels to be sure E85 is the fuel approved for the long term by the Air Resources Board.

---

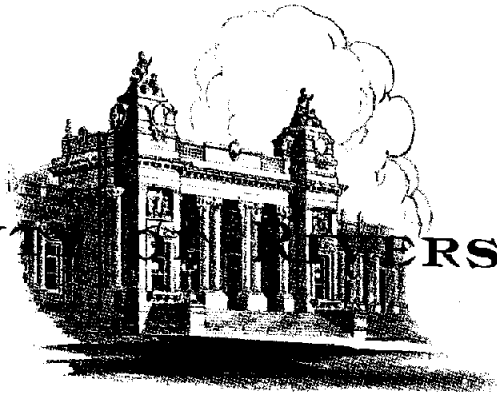
**Finding 6**

A separate vehicle type is not established in FleetFocus system for hybrid and other alternative fuel vehicles to facilitate effective monitoring of these new vehicle classes. Gas/electric hybrid vehicles' current fuel efficiency ranges between 35 MPG and 50 MPG compared to gas only-fueled vehicles' 10 MPG and 25 MPG; combining these vehicles under one group precludes reporting of a meaningful statistical data useful for monitoring.

The vehicles' fuel types are coded in the system which is valuable in identifying hybrids and other alternative fuel vehicles. In the course of reviewing the fuel type codes, we noted 10 vehicles were coded as flex-fuel vehicles but they are not, 35 flex-fuel vehicles were not coded as such, and seven vehicles had invalid Vehicle Identification Number (VIN). (These errors were provided to Fleet Services and have been corrected.)

- Management Reply** **Concur.** Fleet Services can develop reports that group data by both vehicle classification and by fuel type to break out mileage for alternative fuel vehicles. For noted vehicles, vehicle profiles have been changed to reflect the correct fuel type and/or VIN number.
- Recommendation 6.1** Establish separate vehicle type for hybrid vehicles and E85-fueled vehicles. These vehicles differ in technology and fuel efficiency that tracking them separately will facilitate better fuel monitoring.
- Management Reply** **Do Not Concur.** Again, Fleet Services can track the Hybrid and E85-fueled vehicles by fuel type. A report that groups vehicles by vehicle classification and fuel type can be provided for the audit team as necessary.
- Auditor's Comment** Recommendation 6.1 is geared towards providing management an enhanced reporting tool for monitoring fuel usage achieved by hybrid and E85-fueled vehicles.
- Recommendation 6.2** Improve the procedures for setting up new vehicles in the system to ensure the accuracy of vehicle data.
- Management Reply** **Concur.** Fleet Services has controls in place to make sure the information entered into the Fleet Focus system is accurate.

**Appendix**  
**Purchasing and Fleet Services**  
**Management Reply**




ROBERT J. HOWDY SHELL  
DIRECTOR

PURCHASING  
SUPPLY  
CENTRAL MAIL  
PRINTING  
FLEET

**Reply to Draft Internal Audit Report 2010-003:  
Purchasing and Fleet Services, County Vehicle Fuel Usage**

Authorized Signature:

  
Robert J. Howdysheill, Director  
Purchasing and Fleet Services

DATE: May 13, 2010

**Finding 1:**

Based on our observation of four fueling stations on September 24, 2009, and October 1, 2009 (each station was observed for approximately eight hours without interruption), weaknesses in the system's validation process were noted:

- Five employees entered employee ID numbers different from their own IDs in the system. One of the five IDs used belonged to a retired employee.
- One employee entered a vehicle ID different from the ID of the vehicle that was fueled.
- Two employees, each fueling a different vehicle, used the same Driver ID number.
- One employee did not reset the pump after fueling and let another employee continue to dispense fuel on a second vehicle. This occurrence is possible because the established system parameters allow fuel dispensed to exceed the vehicle's fuel tank capacity.

During the course of our audit, we further noted:

- A process is not in place to deactivate terminated employees' driver IDs in a timely manner.
- One hundred thirty (3.6%) of 3,639 vehicles with mileage readings had "miles billed" that did not equal "miles used," this condition signifies adjustments were made to correct prior odometer reading errors. Twenty-five of these corrections ranged between 2,000 to 13,000 miles.
- Four hundred sixty-eight (13.0%) of 3,583 vehicles reviewed had fuel usage greater than the average fuel consumption of vehicles within the same class by 25 percent or more. Since vehicle fuel efficiency is not monitored, questionable fuel usages are not reported to the departments for review and resolution.
- One driver's ID was used by several department employees.
- Seven of ten fueling stations did not have security cameras.

The control deficiencies we noted were mainly related to the following limitations in the current fuel system:

- The current system does not maintain an audit trail of changes to system data. Anyone who has access to the fuel system may set up new users and change system parameters. This internal control weakness is exacerbated because the fuel system is shared with TLMA and Waste Management and staff from both departments with system access may change system parameter settings as well.
- The current system does not allow assignment of security roles and segregation of duties. Some employees due to their assigned roles may need to fuel multiple vehicles in a single day (service technicians and motor pool personnel as examples). Since the system does not distinguish differences in roles, all fuel users are provided similar unlimited fuel access by default.
- User access to the fuel system is through a keypad allowing a user to manually enter any valid Driver ID (usually the same as Employee ID) and vehicle ID. Vehicle and assigned driver are not cross-validated and matched. Since these two data are readily obtainable, the system weakness could be easily exploited.
- The odometer reading is manually entered through a keypad: system parameters are set to allow for wide variances in odometer readings to limit the number of rejected fueling requests.
- A process is not in place for updating user data for changes in employee status such as departmental transfers and terminations.

Based on the results of our observation, review and analysis, the system and processes do not provide adequate assurance that unauthorized transactions are

prevented or detected and accurate vehicle data are collected. As a result, the integrity of the vehicle data and transactions that are maintained by the current system are of major concern.

**Management position concerning the finding: Concur**

**Comments:**

Fleet Services concurs that County employees familiar with the fueling system may find ways to work-around validation controls. These failures to follow validation rules are overwhelmingly motivated by perceived convenience rather than by intent to misallocate fuel to County vehicles. Fleet Services sees very little fuel inventory shrinkage and the audit findings appear to confirm nominal inventory shrinkage. When the audit team was specifically asked if they found evidence of theft of fuel, they said "no."

**Recommendation 1.1:**

Improve the process for authenticating users and collecting vehicle data. System controls should adequately ensure that only authorized vehicles are dispensed fuel and accurate data are collected and processed. Evaluate if the current system could be upgraded to mitigate the internal control weaknesses noted. If the current system cannot be upgraded, a new system capable of automated vehicle identification and data gathering capabilities should be considered.

**Management position concerning the recommendation: Concur**

**Comments:**

The current system cannot be upgraded to address noted system weakness. Changes recommended will require obtaining and adapting new technology that allows a hands-off approach in obtaining complete and accurate fuel and mileage data. A current "best practice" solution requires hardware at each fuel island and on each vehicle, and also requires new fuel system software and related support. Automating vehicle information collection is possible but it is costly.

**Actual/estimated Date of Corrective Action:** Click here to enter a date.  
Unknown. Implementation is dependent upon funding.

**Estimated cost to implement recommendation (If material):** \$ 1,600,000

**Recommendation 1.2:**

Develop and implement procedures for promptly updating driver data for employment status changes such as departmental transfers and terminations.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Services will work with Auditor-Controller and OASIS to obtain an initial list of current County employees and a by-weekly list of all employee terminations and transfers.

**Actual/estimated Date of Corrective Action: August 2, 2010**

Implementation will require allocation of staff time and should not be material.

**Estimated cost to implement recommendation (If material): \$ 0.00**

**Recommendation 1.3:**

Develop county standards for managing county vehicle fuel usage. Implement procedures for monitoring and reporting vehicle fuel usage to county departments, including a process for resolving issues requiring corrective actions.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Service is developing mileage standards for each type of vehicle and will report to the using department any large variance plus or minus from these standards.

**Actual/estimated Date of Corrective Action: August 5, 2010**

Implementation will require allocation of staff time and coordination with other County departments.

**Estimated cost to implement recommendation (If material): \$ Unknown**

**Recommendation 1.4:**

Install security camera/s to monitor activity at each fueling station.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Services install security cameras at six fuel sites that currently are not monitored when funding is available.

**Actual/estimated Date of Corrective Action: May 5, 2011**

**Estimated cost to implement recommendation (If material): \$ 150,000**

**Finding 2:**

Board Policy A-62 (Credit Card Use), effective April 14, 2008, prohibits county employees from maintaining and using fuel credit cards other than the county-awarded fuel credit cards. Certain departments continue to maintain and use their own fuel credit cards, purchasing over 600,000 gallons of fuel during the one-year period of September 1, 2008, through August 31, 2009. Fuel purchased through these cards is not recorded in the county's fuel system; as a result, a number of vehicles' fuel data are actually understated. This affects the county's ability to effectively monitor fuel usage and, possibly, obtain the most favorable fuel price.

**Management position concerning the finding: Concur**

**Comments:**

Fleet Services will work with the Executive Office, Auditor-Controller, and other departments to ensure all fuel purchased for Fleet Services vehicles is recorded in the Fleet Services management system.

**Recommendation 2:**

Coordinate action with the Executive Office and department management to centralize the administration of all Voyager fuel cards through Fleet Services. These include Voyager fuel cards that are currently maintained by the departments on their own account. This will ensure that all fuel usage can be properly and centrally recorded, monitored, and reported by Fleet Services.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Services strongly agrees that all fuel purchased for Fleet Services vehicles must be recorded in the Fleet Services fuel system and that all Voyager card fuel purchases for Fleet Services vehicles must be coordinated with Purchasing and Fleet Services. Fleet Services will work with the Executive Office and the Auditor Controller to insure that happens.

**Actual/estimated Date of Corrective Action: October 1, 2010**

Implementation will require allocation of staff time and coordination with other County departments.

**Estimated cost to implement recommendation (if material): \$ Unknown**

**Finding 3:**

Odometer readings entered by drivers at Voyager and CFN fueling pumps are not system-validated and contain excessive errors and omissions preventing Fleet Services from using the data to monitor fuel usage. This internal control weakness is exacerbated especially for CFN transactions because CFN cards are issued to drivers and not linked to specific vehicles. At times, CFN transactions cannot be identified to specific vehicles such as when vehicle ID entry is omitted or erroneous.

**Management position concerning the finding: Concur**

**Comments:**

Fleet Service agrees with the audit findings.

**Recommendation 3.1:**

CFN credit cards should be linked to specific vehicles rather than employees.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Service agrees with the audit findings.

**Actual/estimated Date of Corrective Action:** Click here to enter a date.

The Sheriff's Department has agreed to a change in CFN card use policy.

**Estimated cost to implement recommendation (If material):** \$ Unknown

**Recommendation 3.2:**

Develop and implement procedures to use Voyager and CFN transactions data for monitoring fuel usage. In order to facilitate this, validate odometer readings and other vehicle data off-line before uploading them to Fleet Services' system. This off-line validation is necessary since real-time validation of Voyager and CFN transactions is not doable using the existing system. In conjunction, notify departments of exceptions noted during validation and reinforce the need for drivers to input accurate data.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Services has had off-line mileage validation steps in place for many years. Pre-billing mileage verification can be established.

**Actual/estimated Date of Corrective Action: September 6, 2010**

**Estimated cost to implement recommendation (If material): \$ Unknown**

**Finding 4:**

CFN transactions totaling \$18,144 for the period April 1, through April 15, 2009, were uploaded to FuelForce and processed twice resulting in duplicate billings to the departments. This was corrected in January 2010 after an internal audit. Fuel dispensed for the first six months at a newly opened fueling facility was not billed until the seventh month when the omission was discovered by Fleet Services IT staff. Existing internal controls did not prevent or detect these occurrences timely.

**Management position concerning the finding: Concur**

**Comments:**

The CFN billing error in question was a one-time occurrence with a new vendor. The billing error was corrected and a control to prevent further occurrences is in place.

The omission of billing was attributed to a new fuel site. Controls are in place to prevent new sites from being overlooked.

**Recommendation 4:**

Develop and implement procedures to ensure that fuel transactions are processed timely and accurately.

**Management position concerning the recommendation: Concur**

**Comments:**

Controls are in place to ensure data from each fuel site is downloaded to the Fleet Services central database prior to monthly billing.

**Actual/estimated Date of Corrective Action: July 27, 2009**

Control was corrected in July 2009 prior to the start of the audit.

**Estimated cost to implement recommendation (If material): \$ Unknown**

**Finding 5:**

Flex-fuel vehicles are rarely fueled with E85; thus, the county is not achieving the goal of having acquired these flex-fuel vehicles to help improve air quality. Although the price of E85 fuel is lower than gasoline, the cost of operating a vehicle with E85 fuel at current prices is higher because E85-fueled vehicles get 20 to 30 percent fewer miles per gallon.

The higher cost, considering the present economic situation, could potentially deter users from switching to E85. Its expanded use may need to be supported by a countywide initiative and/or board directive.

**Management position concerning the finding: Concur**

**Comments:**

Recommended use of E85 is in flux. Fleet Services will continue to monitor Federal and State recommendations regarding use of E85.

**Recommendation 5:**

Sponsor an amendment to Board Policy D-2 (Use and Purchase of County Vehicles) to include clear guidelines regarding the use of E85 fuel.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Services will continue to monitor the trends in alternative fuels to be sure E85 is the fuel approved for the long term by the Air Resources Board.

**Actual/estimated Date of Corrective Action:** Click here to enter a date.

Implementation will require allocation of staff time and coordination with other County departments.

**Estimated cost to implement recommendation (if material):** \$ Unknown

**Finding 6:**

A separate vehicle type is not established in FleetFocus system for hybrid and other alternative fuel vehicles to facilitate effective monitoring of these new vehicle classes. Gas/electric hybrid vehicles' current fuel efficiency ranges between 35 MPG and 50 MPG compared to gas only-fueled vehicles' 10 MPG and 25MPG; combining these vehicles under one group precludes reporting of a meaningful statistical data useful for monitoring.

The vehicles' fuel types are coded in the system which is valuable in identifying hybrids and other alternative fuel vehicles. In the course of reviewing the fuel type codes, we noted 10 vehicles were coded as flex-fuel vehicles but they are not, 35 flex-fuel vehicles were not coded as such, and seven vehicles had invalid Vehicle Identification Number (VIN). (These errors were provided to Fleet Services and have been corrected.)

**Management position concerning the finding: Concur**

**Comments:**

Fleet Services can develop reports that group data by both vehicle classification and by fuel type to break out mileage for alternative fuel vehicles. For noted vehicles, vehicle profiles have been changed to reflect the correct fuel type and/or VIN number.

**Recommendation 6.1:**

Establish separate vehicle type for hybrid vehicles and E85-fueled vehicles. These vehicles differ in technology and fuel efficiency that tracking them separately will facilitate better fuel monitoring.

**Management position concerning the recommendation: Do Not Concur**

**Comments:**

Again, Fleet Service can track the Hybrid and E85-fueled vehicles by fuel type. A report that groups vehicles by vehicle classification and fuel type can be provided for the audit team as necessary.

**Actual/estimated Date of Corrective Action: July 1, 2010**

Implementation will require allocation of staff time to create new reports but costs should be moderate.

**Estimated cost to implement recommendation (If material): \$ Unknown**

**Recommendation 6.2:**

Improve the procedures for setting up new vehicles in the system to ensure the accuracy of vehicle data.

**Management position concerning the recommendation: Concur**

**Comments:**

Fleet Service has controls in place to make sure the information entered into the Fleet Focus system is accurate.

**Actual/estimated Date of Corrective Action: July 1, 2010**

Implementation will require on-going allocation of staff time but should not require significant costs.

**Estimated cost to implement recommendation (If material): \$ Unknown**