



Colorado Independent
Consultants Network, LLC



Jefferson County, Colorado

Fuel Usage Internal Audit

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Table of Contents

Executive Summary	3
Background	4
Objective, Scope, and Procedures Performed	6
Interviews Conducted	8
Observations and Recommendations	9
Appendix A- Process Flowcharts	20



Executive Summary

Colorado Independent Consultants Network (CICN) has been engaged to perform a review of Jefferson County’s (Jeffco’s or the County’s) Fuel Usage. The overall objective of this project was to determine if controls around the administration of the county’s Fuel Usage, as well as the controls over the purchase and sale of fuel are appropriate.

Our observations, which are presented in order of perceived importance, are summarized in the table below and presented in body of the report.

Summary of observations	Detail on Page #
1. <u>Inability to perform meaningful data analytics</u> Inaccuracies are suspected in 10% of the mileage entered into the fuel vending system. Additionally, Sheriff’s Office vehicles do not enter mileage when using Fleet controlled fuel stations, and often enter incorrect mileage when using the Sheriff’s Office controlled fueling station. Both of these factors resulting in the inability to perform meaningful analysis which could identify fuel theft.	9
2. <u>Failure to deactivate fueling access credentials for terminated employees-</u> Terminated employees are not being removed from the fueling system, reducing the controls over unauthorized fuel use.	11
3. <u>Lack of written agreements for 3rd party fueling/insurance coverage –</u> Aside from basic agreements maintained by the Airport and Sheriff’s Office, the county does not maintain agreements with the 3 rd party fueling agencies memorializing expectations of the arrangement, specifically agreement to pay and maintain adequate liability insurance. Additionally, the county does not have current insurance certificates on file for any of the third parties using county owned fuel pumps.	13
4. <u>Substantiation of fuel markup costs</u> The county was not able to provide a detailed breakdown of the personnel costs (equivalent to 1 FTE) attributed to fueling operations. These costs are used to drive a markup charged to other county departments and third parties. As grant funds are likely charged by certain departments for fuel usage, unsubstantiated costs may be denied or put the grant in jeopardy. If the county’s current estimate is accurate, there may be opportunities to streamline the process and reduce costs.	16
5. <u>Contract monitoring</u> During our performance of fuel price testing we were unable to agree the amounts charged by Hill Petroleum to contractually agreed upon rates and believe the county was undercharged for fuel purchases. As part of the county’s contract monitoring efforts, we recommend invoice rates be recalculated to ensure pricing accuracy.	18

End of Executive Summary Section



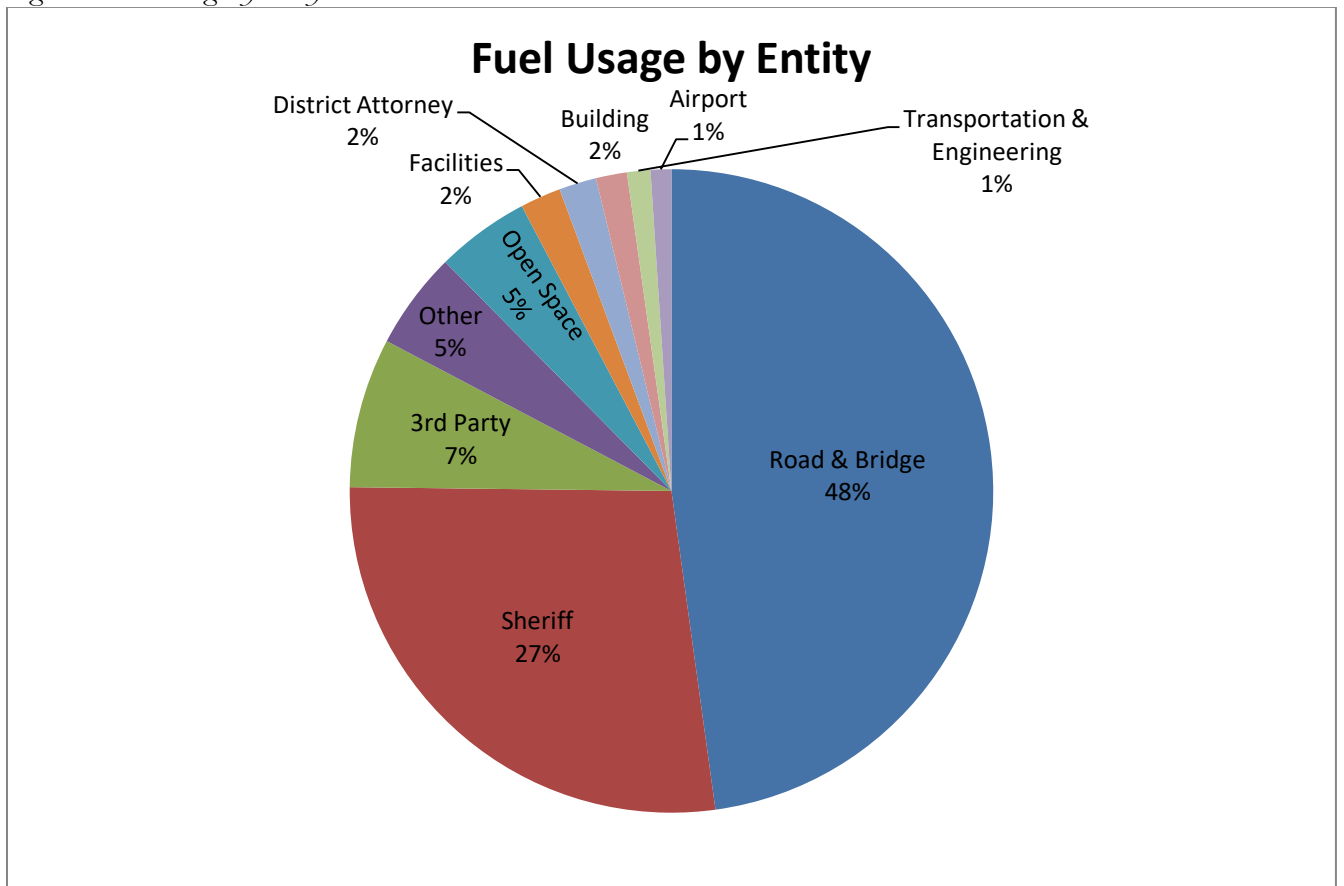
Background

Jefferson County’s Fleet Division, with the authorization of the board of county commissioners, is responsible for providing fuel access to the over 1,100 vehicles and pieces of equipment used throughout Jefferson County. Fleet Services manages a total of 11 fueling stations. In addition, the Rocky Mountain Metropolitan Airport (RMMA) with 75 vehicles and pieces of equipment and the Sheriff’s Office with nearly 350 vehicles and pieces of equipment have fueling stations at their business locations that they manage independently. In addition to providing fuel to the county, county owned fuel pumps are also used by 14 other governmental agencies within the county. These entities include fire protection districts, municipalities, town police departments, and other small governmental operations. During our scope period of 11/1/16-10/31/17, the county purchased \$1,932,225 in fuel as follows:

- Fleet services: \$1,428,436
- RMMA: \$28,350
- Sheriff’s Office: \$475,439

In terms of the nearly 1 million gallons of fuel used during our audit period, Road & Bridge and the Sheriff’s Office make up the vast majority of fuel usage at 75%. See *Figure 1: Fuel usage by entity*, below.

Figure 1: Fuel usage by entity



All fuel used for Jefferson County vehicles is purchased through a Colorado Multiple Assembly of Procurement Officials (MAPO) contract in place with Hill Petroleum. Arapahoe county is the lead



county in negotiating this annual multi-county contract, with feedback solicited from each of the main service departments to ensure adequate and timely service is in place before the contract is renewed.

Various systems are in place to automate and control the fueling process from both financial and environmental aspects. These systems include the following:

Veeder-Root: This is a tank monitoring system that will display the current amount of fuel in the tank, temperature, 90% ullage volume (the amount of fuel that can be added to the tank to fill it to 90% capacity, the State mandated maximum amount), and other statistics. This system will alert maintenance personnel of problematic situations, such as tank leakage (underground tanks are double-walled), tank overflow, and water in the tank. During the fuel delivery process, the driver from Hill Petroleum will check this system to verify the tank capacity before delivering the ordered quantity.

Centeron: This system is used by the Fleet Division to remotely monitor tanks at all 11 fueling locations managed by Fleet.

Petro-Vend: This is the end-user interface, similar to the point of sale terminal at the pump of a gas station. End users will insert a pre-programmed chip key (not applicable to RMMA or Sheriff's Office locations) and enter their employee ID, unit number, and vehicle mileage/hours reading prior to fueling. The Petro-Vend system will not allow fueling without these valid credentials.

Phoenix: This is the software interface that controls the Petro-Vend system. User credentials, vehicle information, and chip keys are programmed into the Phoenix system. RMMA and the Sheriff's Office also use Phoenix to generate usage reports.

Faster: This is a Fleet Management software used by the Fleet Division to run fleet operations, including vehicle service records, and preventative maintenance. This system is also used as a more comprehensive addition to the Phoenix software, allowing for more robust tracking of fuel usage. The Faster system also allows customization of Phoenix capabilities. As a key example, the Phoenix system can be set up to disallow fueling if a vehicle's mileage is not within expected thresholds. The Faster system has the added capability of allowing fueling after three attempts of entering an mileage outside of expected thresholds. This feature is useful in that a preventative control (proactive transactional blocking of a fueling attempt outside established parameters) will not hinder operations, should the blocking be a result of user error rather than actual inappropriate use.

The entire fuel purchase and fuel usage process for all three agencies is summarized in graphic form in Appendix A.



Objective, Scope, and Procedures Performed

The overall objective of this project was to determine the appropriateness of controls around the administration of the county's Fuel Usage, as well as the appropriateness of controls over the purchase and sale of fuel.

The scope timeframe for the fuel usage audit covered November 1, 2016 through October 31, 2017, with current processes evaluated as of the date of our audit.

Procedures performed during our review include the following:

- Review of fuel usage policies and written procedures – While documentation around the county's fueling processes are minimal, the process itself is relatively straightforward.
- Process documentation - We met with key process owners within Fleets Services, the Rocky Mountain Metropolitan Airport (RMMA), and the Sheriff's Office to perform a walk-through of the processes they follow related to fuel usage and purchasing. Fleet Services is the main administrator of fuel usage for Jeffco with 11 fueling locations; but the Airport and the Sheriff's Office have their own dedicated fuel pumps.
- Administration analysis - We evaluated the management reporting and management review processes established by Fleet Services, RMMA, and the Sheriff's Office to monitor the status of fuel ordering from Hill Petroleum and fuel usage for the approximately 1,500 Jefferson County vehicles currently in service.
- Data Analytics – We attempted to perform analysis on the fuel usage data provided by the Faster Fleet Management System (FASTER) used by Fleets Services and Phoenix system use by the Sheriff's Office. We selected these two entities due to their relative size. Due to the quality of the available data, we were unable to perform some of the desired analysis.

Analysis performed and attempted included the following:

1. **Compared fuel purchased to fuel used-** We noted both unleaded and diesel fuel purchases approximated usage and that the minor variances could be attributable to timing differences. Based on the controls in place, it would be difficult to get fuel out of the pumps without going through the PertoVend system which accounts for all fuel used.

2. **Compared authorized fuel users in the PetroVend system to a list of current and terminated Jefferson County Employees-** For Fleet Services, we noted a total of 1,921 users. Of these users, 743 (39%) were terminated employees. Termination dates for employees ranged from 4 days to over 11 years (Mean= 5.4 years) since the date of our audit, indicating that terminated employees are not removed from the fueling system.

We also noted differences in the list of current Sheriff's Office employees and fuel users; however, we were unable to perform more detailed analysis due to issues with the available data.



3. Attempted to compare fuel economy for each fueling for each vehicle- In this test, we are looking to see if a vehicle's fuel economy is outside its normal range. To perform this test, we are assuming users top off the tanks each fueling and that the correct vehicle mileage is entered at the time of fueling. Using these assumption, we know the number of miles driven since the last fueling and the quantity of fuel put into the vehicle. Dividing those two figures, we arrive at the fuel economy (miles per gallon) the vehicle achieved since the last fueling. This data can then be summarized in a pivot table to present average, min, and max fuel economy for each vehicle. Min and max values which deviate from the average beyond a set percentage can be investigated for potential abnormalities. Upper and lower average fuel economy thresholds can be set to eliminate outlier vehicles, such as lawn equipment. Fueling events outside a vehicles average fuel economy may be indicative of fuel theft.

4. Attempted to compare fuel economy between identical vehicles- In this test, the min, max, and average fuel economies could be compared between different unit numbers of identical vehicles. Identical vehicles falling outside a defined threshold could be investigated as they could be indicative of potential fuel theft.

While data analytics in #'s 3 & 4 above should identify areas to look into further, there were too many instances of incorrect mileage entries to produce meaningful results. There were 39,095 fueling transactions during our scope period. Of these, 4,305 (11%) were flagged as overriding the reasonability thresholds established in the system.

- Testing - We performed testing of key process controls included the following:
 - Support for 25 invoices from Hill Petroleum- 20 of these fuel purchases from Fleet Services, 3 from the Sheriff's Office, and 2 from the RMMA.
 - Verification of current Fuel Tax Exempt Certificates from the state for outside agencies who purchase fuel from Jeffco
 - Comparison of current authorized fuel users to active employee list
 - Review of Monthly billing of outside agencies for fuel purchased
 - Confirmation that Jeffco is taking the 1% prompt payment discounts offered by Hill Petroleum
 - Onsite inspections for 6 of the 13 Jeffco fueling locations
 - Review of formal contracts and certificates of insurance for all 3rd party fuel users.



Interviews Conducted

Our review involved interviews and discussions with key personnel involved in the fuel purchase and usage processes. These interviews included employees in Fleet Services, the RMMA, the Sheriff's Office and Jeffco Accounting. These interviews allowed us to understand the start-to-finish fueling processes.

The following individuals were interviewed as part of our review:

Morgan Flenthrope- Fleet Services Administrative Technician
Jeremy Vandegrift- Fleet Services Parts and Fuel System Manager
Buck Benke- Director of Fleet Services

Jeff Dewey- RMMA - Airport Maintenance Manager

Tina Davros- Sheriff's Office Director of Asset Management
Dan Gard- Sheriff's Office Support Services Division Chief
Rusty Hardy- Sheriff's Office Fleet Services Manager
Diana Wickham- Sheriff's Office Asset Management Technician
Jessica Parivar- Sheriff's Office Asset Management Technician

Elaine Fears- Accounting Operations Manager
Mike Freeman- Risk Management
Erika Heck- Accounting Technician
Laura Waggoner- Accounting Technician

Tammy Walsh- Hill Petroleum Controller
Gina Baker- Hill Petroleum Customer Relationship Manager

Casey Tighe- County Commissioner



Observations and Recommendations

Based on the electronic and physical barriers in place, it would be very difficult for outside parties to steal fuel from Jeffco facilities. Individuals with sufficient knowledge of the system could inappropriately obtain fuel with varying levels of difficulty; however, detective controls are in place at the majority of county fueling sites. We also noted that Jefferson County appears to have a good working relationship with Hill Petroleum, the primary fuel vendor used by Jeffco.

During the course of our review, we have come across several opportunities to strengthen controls. Our recommendations are based on our experience in internal audit, as well as best practices from other audits. These recommendations have been tailored to consider the specific needs of Jefferson County.

1. Inability to perform meaningful data analytics

Issue:

Data analytics to identify potential fuel theft are currently not performed by the three entities which have fueling operations. While we would normally recommend such analytics be performed on a periodic basis, the underlying data does not currently allow for such. For Fleet services (which include some Sheriff's Office vehicles), there were a total of 39,095 fueling transactions during our scope period. Of these, 4,305 (11%) were flagged as overriding the reasonability thresholds established in Fleet's FASTER system. These are cases where the user entered in an incorrect meter (mileage/hours) reading at the time of fueling. The Sheriff's Office cannot perform reasonability analytics as none of their vehicles are required to enter mileage when fueling at Fleet operated sites. While mileage is required for the Sheriff's Office fueling station, a significant number of users enter incorrect mileage. While the airport also does not perform fuel usage analytics, the quantity of fuel used is relatively minimal (1% of total fuel usage).

Risk:

Absent reliable data, it would be difficult for the county to detect potential fuel theft. Requiring valid mileage to be entered into the system as part of the fueling process would act as a preventative control to deter such activity and a detective control to identify potential fuel theft.

Recommendation:

The importance of entering accurate mileage into the system should be stressed to all employees with fuel station access. In addition to following up on mileage entry errors, Fleet could track employees who enter incorrect mileage. Repeat offenders could be referred to the appropriate supervisors for retraining. Additionally, the current reasonability thresholds could be refined to produce more accurate mileage data. Currently all vehicles are set to minimum mileage thresholds between fueling of 175 miles and maximum thresholds of 1,000 miles. Mileage thresholds could be customized for the class of vehicle using a formula of tank size and average fuel economy.

The Sheriff's Office should consider requiring vehicle mileage to be entered in both their own fueling station as well county Fleet fueling stations. Alternatively, to more efficiently



track fuel usage statistics and take advantage of the more robust capabilities of Fleet's system, the Sheriff's Office could consider converting their current fueling system to one managed by the county's Fleet Division.

Management Response:

Agree

Fleet Services Response: The Driving on County Business Policy has been amended to include a requirement that all employees report mileage accurately while using county motor pool vehicles. This policy will be sent to all employees through the county's document management system (PowerDMS).

Sheriff's Office Response: The county Fleet Services Division will be reprogramming the input parameters for all fuel keys issued to Sheriff's vehicles to require mileage entry and employee ID numbers. This will entail replacing all fuel keys currently in use by the Jefferson County Sheriff's Office (JCSO) with new keys. This is scheduled to occur in January 2018.

JCSO will continue to emphasize the importance of correctly entering the mileage and will start tracking users that do not. Users that enter incorrect mileage will be notified by e-mail. If the user continues to enter incorrect mileage the Fleet Manager will notify their supervisor.

The county fleet fuel system flags incorrect mileage entries in real time. The JCSO system does not. While the county Fleet Division can correct a wrong mileage entry right away, the JCSO Fleet does not see an incorrect entry until the monthly report is run. This results in invalid data for that vehicle for the month.

Jefferson County Fleet Services Division and the JCSO Fleet use different fuel tracking software systems. These systems are not compatible. The JCSO system is not capable of exporting data in Excel formats so the information cannot be combined into a single report.

As a result, each month JCSO Fleet has 2 different fuel reports to reconcile by hand, making it impossible to do any data analytics on incorrect mileage entry or misuse of fuel disbursing. The best solution to this problem would be to convert the JCSO Fleet fueling system to the same system as the county Fleet. This would result in one monthly fuel report for all JCSO vehicles and would allow accurate data tracking of fuel use and incorrect mileage entry by individual vehicles and users in real time. JCSO will be working with county management to determine if this is a viable and cost-effective solution.

Responsible Party:

Buck Benke, Director of Fleet Services

Rusty Hardy, Sheriff's Office Fleet Manager

Completion Date:

Expected date of completion is 6/30/18 during budget process.



2. Failure to deactivate access fueling credentials for terminated employees

Issue:

Terminated employees are not being removed from the PetroVend fuel access system. For Fleet Services, we noted a total of 1,921 active users in the PetroVend system. Of these 743 (39%) were terminated employees. Termination dates for employees ranged from 4 days to over 11 years (Mean= 5.4 years) since the date of our audit, indicating that terminated employees are not removed from the fueling system.

Data reliability issues, likely stemming from changing Sheriff's Office ID numbers, prevented us from quantifying the number of terminated Sheriff's Office employees.

Risk:

Terminated employees with valid access credentials to use the county's fueling systems may be able to illegitimately obtain fuel. In conjunction with a lack of the ability to monitor fuel usage for theft, such activity would likely go unnoticed. This is especially true with the Sheriff's Office, in which no physical fuel key is required to obtain fuel and the pumps are located in an unsecured area.

Recommendation:

All fuel access lists should be reviewed in comparison with current employee lists and authorized 3rd party users. Terminated employees or users who no longer have a legitimate fueling need should be removed from the fueling system. In order to clean up the fuel system access, the county should ensure employee lists are complete and accurate.

Terminated employees should be removed from the system promptly upon termination. The county should ensure their employee termination process includes informing Fleet so that fuel pump access can be terminated. The Sheriff's Office Fleet Manager is already on the distribution list for Sheriff's Office terminations.

Management Response:

Agree

Fleet Services Response: The Fleet Services Administrative Technician has been added to the monthly distribution of terminated employees that Human Resources sends. The Administrative Technician will use this information to update the fleet database and shut off access to county fuel pumps for terminated employees.

Sheriff's Office Response: The JCSO Fleet Manager is on the distribution list for employees that leave the office and removes them from the fuel system. With the new fuel keys, the county Fleet will also be using JCSO employee ID numbers. The JCSO Fleet Manager will notify county Fleet monthly of employees that need to be removed from the county fleet fuel system



Responsible Party:

Buck Benke, Director of Fleet Services

Rusty Hardy, Sheriff's Office Fleet Manager

Completion Date:

Expected completion date 2/28/18



3. Lack of written agreements for 3rd party fueling/insurance coverage

Issue:

Fleet Services does not have any formal written agreements in place with the outside agencies that use their fuel on a regular basis and reimburse Jeffco for fuel used. While the Sheriff's Office and airport both have agreements with their third-party fueling agencies, these agreements generally only contain one line referring to selling fuel at cost and do not cover payment expectations or detailed insurance requirements. *See Figure 2: Outside agency agreements* for a listing of all third parties who use the county's fuel, as well as which department's pumps are being used and which agencies have contracts.

Figure 2: Outside agency agreements

Outside Agency with an Agreement to use Jeffco Fuel for their vehicles	Jeffco Department	Contract present with outside agency
North Metro Fire Protection District - Station 65	RMMA	Yes
Coal Creek Fire Protection District	Fleet	No
Evergreen Metropolitan District	Fleet	No
Evergreen Fire Protection District	Fleet	No
Foothills Animal Shelter	Fleet	No
Foothills Fire Protection District	Fleet	No
Genesee Fire Protection District	Fleet	No
Highland Rescue	Fleet	No
Indian Hills Fire Protection District	Fleet	No
Indian Hills Water District	Fleet	No
Ken Caryl Ranch Water and Sanitation	Fleet	No
North Fork Fire Protection District	Fleet	No
Mountain View Police Department	Sheriff's Office	Yes
Morrison Police Department	Sheriff's Office	Yes

In addition to a lack of formal contracts, the county is not consistently requiring, soliciting, and retaining current insurance certificates from the 3rd parties which use the county's fueling facilities. None of the 14 agencies using the pumps had current insurance certificates on file. While the Sheriff's Office requires their 3rd parties to maintain adequate insurance, it does not specify a dollar amount or type of insurance required.



Risk:

Without a written agreement in place, follow-up on delinquent fuel reimbursement payments or seeking reimbursements for damage caused by outside agency employees/vehicles on Jeffco property may not be effective, subjecting the county to financial exposure.

Absent current insurance certificates, the county may be financially liable for damages caused by 3rd party fueling operations.

Recommendation:

We recommend the county develop a standardized formal agreement for all third parties using county fueling facilities. This agreement should specify:

1. Prompt payment of county invoices
2. That the third party is responsible for all fueling on their account, regardless of whether the transaction was authorized by the 3rd party or appropriate.
3. Mandatory minimum insurance requirements, commensurate with the anticipated damage that could be caused in a fueling operation.

Additional contract modifications can be made as deemed appropriate or necessary, such as the requirement for North Metro fire to refill the Airport's Self-Contained Breathing Apparatus (SCBA) gear used for their Airport Rescue and Firefighting (ARFF) operations.

All county entities allowing third party fueling should work with the county's Risk Management to develop standardized insurance requirements commensurate with the nature of the risk involved in fueling operations. Current insurance certificates should be provided to and maintained by the county's Risk Management. Procedures should be established to ensure current insurance certificates are solicited and obtained, as such certificates are typically only applicable to a one-year period.

Management Response:

Agree

Fleet Services Response: Fleet Services management and the Deputy County Manager will work with the County Attorney's Office to determine the scope of agreements with other agencies using the county fuel system. New agreements will include insurance requirements and insurance certificates will be maintained by Risk Management.

Sheriff's Office Response: The JCSO Fleet Manager will contact the Morrison Police Department, the Morrison Public Works Department and the Mountain View Police Department and obtain their statements of liability insurance coverage.

Airport Response: The Airport will meet with Risk by the end of February 2018, to develop standardized insurance requirements. The Airport has recently obtained a liability insurance certificate from North Metro Fire. This certificate will be kept on file at the airport and a copy sent over to Risk Management. The Airport Fleet Supervisor, each January will review



the expiration date of the certificate to solicit and obtain a new certificate from North Metro Fire before expiration.

Responsible Party:

Buck Benke, Director of Fleet Services

Rusty Hardy, Sheriff's Office Fleet Manager

Jeff Dewey, Airport Fleet Maintenance Supervisor

Completion Date:

Estimated Completion Date 4/30/18



4. Substantiation of fuel markup costs

Issue:

In addition to providing fuel for their own departmental vehicles and equipment, Jefferson County fleet services allows other county departments and twelve third party governmental entities to use the fuel pumps. These other departments and third-party entities using pumps operated by Fleet Services are charged the county's actual fuel costs, as automatically calculated by the FASTER fleet management system using a weighted average inventory cost. A markup of .10 per gallon is added to these costs to cover administrative costs as well as costs associated with maintaining the fueling system.

In 2017 these costs totaled \$20K in fuel system repairs and \$58K in administrative allocations equating to one Full Time Equivalent (FTE) employee. Administrative time consisted of 50% of an administrative staff's time to monitor the fueling system reports, order fuel, process incoming fuel invoices, and issue intra-county and third-party invoices for fuel used. The remaining 50% FTE was for a fuel technician/parts runner position to obtain stick readings for fuel tank levels and perform system maintenance as required.

While the markup justification shows the salaries and benefits for these two individuals, there is no further documentation to evidence the accuracy of the FTE estimation.

Neither the Sheriff's Office nor the airport are charging a markup to cover administrative and maintenance costs associated with the fueling system as these costs have been determined to be negligible.

While the airport has estimated their fueling administrative time at less than 1% and the Sheriff's Office at roughly 2 hours per month, it is important to note that the Fleet Division has 11 fueling sites, 12 outside agencies, and a host of other county departments in comparison to the one site maintained by the Airport and Sheriff's Office. Nevertheless, the difference in administrative time between the three fueling entities within the county in conjunction with the automation provided by the current fueling technology in place bring the potential for process streamlining.

Risk:

Fueling costs, inclusive of markup to cover administrative and maintenance costs, are being charged to other county departments, some of which are charging State and Federal grants. It is important that the county not generate an internal profit through providing services between departments. Costs charged to grants which cannot be substantiated may be denied and/or place the program funding in jeopardy.

If the administrative costs are an accurate reflection of actual effort, there may be opportunities to streamline the process.



Recommendation:

The Fleet Division should perform a time study or similar effort to justify the amount of administrative time charged to fueling operations. Documentation should include the activities performed and the amount of time it takes to perform them. The following could be used as an example:

Invoice processing to other departments and 3rd parties: 8 hours/month (avg. .5 hours/day)

Administrative set up/termination of users: 4 hours/month (avg. .25 hours/day)

Daily fuel report monitoring & ordering: 2 hours/day

Daily fuel invoice processing, reconciliation & data entry: 1 hour/day

Dip stick readings and maintenance: 8 hours/month (avg. .5 hours/day)

Total daily fuel related time: 4.25 hours (.53 FTE)

Fuel markups should be adjusted to reflect the detailed substantiation of time. To the extent administrative time seems excessive, Management should look for opportunities to streamline the process and eliminate non-value-added activities. Examples of opportunities include automating the fuel delivery process, whereby the county's fuel vendor will remotely monitor the tank levels and automatically deliver a specified quantity of fuel when the tanks fall below a specified level. Depending on the nature of the repair/maintenance, the county may find it more economical to outsource system maintenance and repair to a third party.

Management Response:

Agree

Fleet Services Response: We will perform a deeper inspection of our assumptions and ensure all underlying figures and assumptions are supportable. We will also consider including provisions in Intergovernmental Agreements as they are developed.

Responsible Party:

Buck Benke, Director of Fleet Services

Completion Date:

3/31/18



5. Contract monitoring

Issue:

While the Hill Petroleum invoice rates are reconciled to the daily pricing sheet as part of the county's controls, the price per the pricing sheet is not recalculated based on the DTN rate and contractual markups. During our performance of fuel price testing we were unable to agree the amounts charged by Hill to contractually agreed upon rates. Based on the recalculations performed, it appears the county was consistently undercharged for fuel purchases.

Through the MAPO agreement, Jefferson County entered into a contract with Hill Petroleum to purchase fuel at a daily spot rate (the "DTN" rate), plus a fixed markup. Hill had not historically provided the DTN rate to the county, and as such, the county did not have the resources needed to recalculate the rate.

We also experienced some challenges in requesting information from Hill in order to perform our audit. These are challenges the county may also experience when attempting to perform contract monitoring efforts.

Risk:

The county is currently relying on the accuracy of vendor pricing and invoicing procedures. Given the variable nature of this contract, validating the accuracy of invoiced amounts is not as simple as tracing to contractual rates. Absent verification by the county, invoiced amounts may be incorrect. While we noted the county appears to have been under-billed, any over-billing would also go undetected, absent an independent recalculation of rates.

Absent a "right to audit" provision, the county may experience difficulties in obtaining data needed to ensure the accuracy of invoice pricing.

Recommendation:

As a result of our audit, Hill discovered they had been charging incorrect rates and has agreed to provide the DTN rate sheets to the county as part of the invoicing process on a go-forward basis. As part of the county's contract monitoring efforts, we recommend invoice rates be recalculated to ensure pricing accuracy. This can be easily achieved through the input of 1-2 extra data points to the spreadsheets currently used to track fuel purchases. Entering the DTN price to be provided by Hill, as well as applicable additive charges can trigger an automatic recalculation of the expected invoice rate/total invoice amount. Any discrepancies should be resolved with Hill. Development of this spreadsheet will also assist in the county's understanding of fuel pricing and ensure Hill's pricing methodology is compliant with that negotiated per the contract.

During the next contract extension, we recommend the county include a "right to audit" provision within the contract. This should state that the county reserves the right to audit Hill's records, and that Hill will provide requested documentation within a reasonable time period at no additional cost to the county or their designated representative.



Management Response:

Agree.

We (Fleet, Sheriff's Office, and RMMA) will add the DTN rates and additive costs to our existing spreadsheets in order to automatically recalculate the expected invoice total. Any discrepancies will be resolved with Hill Petroleum.

Accounting and Purchasing staff will work with the County Attorney's Office to research whether a right to audit clause is in place and will be include in our next contract revision with Hill Petroleum if necessary.

Responsible Party:

Buck Benke, Director of Fleet Services

Rusty Hardy, Sheriff's Office Fleet Manager

Jeff Dewey, Airport Fleet Maintenance Supervisor

Completion Date:

1/31/18 (Ongoing recalculation of Hill Invoices)

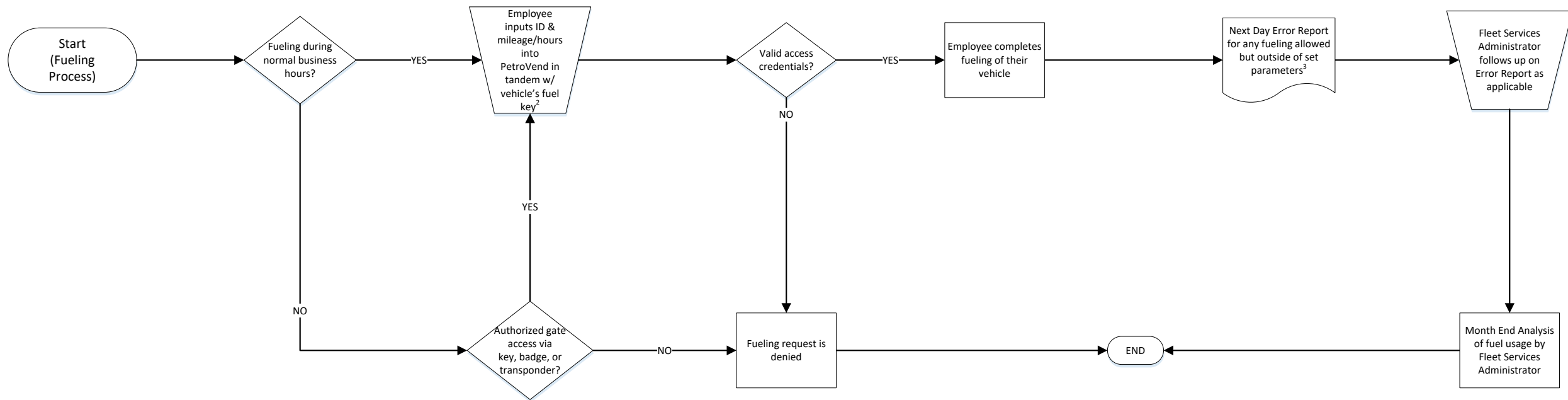
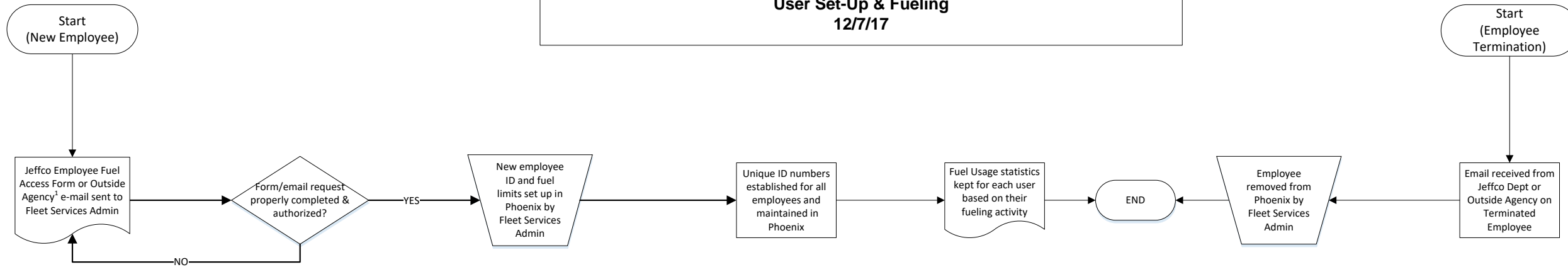
1/31/19 (Incorporation of right to audit clause)



Appendix A- Process Flowcharts

The following flowcharts illustrate the current fuel purchase and usage processes in place for Jefferson County. These flowcharts were used to better understand the process, highlight potential control deficiencies, and identify potential opportunities for efficiency improvement.

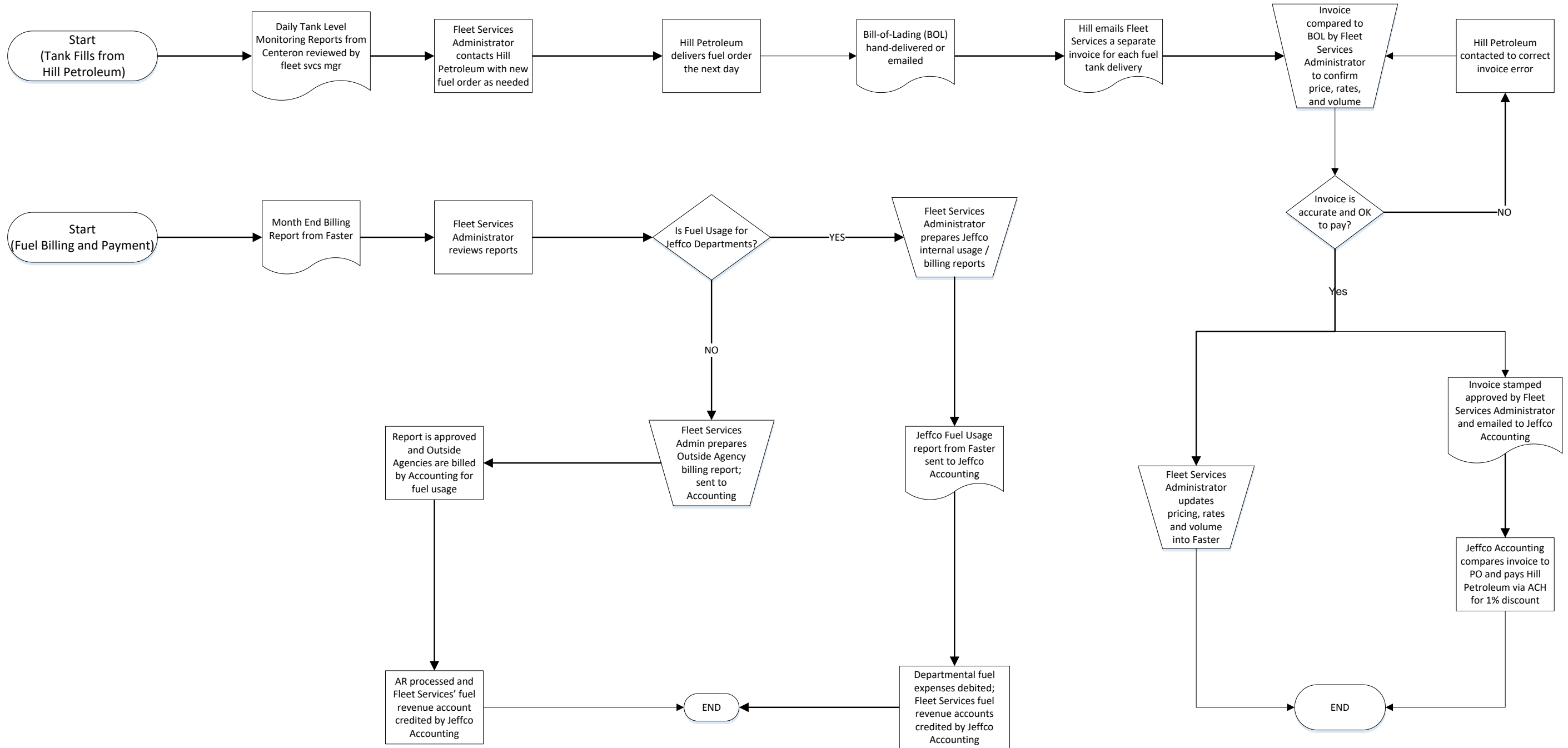
**Jefferson County Fuel Usage- Fleet Services
User Set-Up & Fueling
12/7/17**



Footnotes:
 1. All eligible Jeffco employees and fuel-tax-exempt Outside Agency employees can fuel company vehicles at 11 different Fleet Service locations
 2. All vehicles have a fuel key assigned to the vehicle and not the employee. Employees with fueling privileges are set up in Phoenix
 3. The PetroVend system will ask a user to enter the vehicle/equipment's mileage/hours. The system knows the mileage of the last fueling and will expect the new mileage to be within expected parameters based on the fuel efficiency and tank size of the vehicle. If the mileage entered is outside of expected parameters, the system will re-prompt the user to enter the correct mileage up to three times. If the mileage is still outside of expected parameters, the system will allow the user to fuel, but log the exception on a report. Sheriff's Office vehicles are not prompted to enter mileage.

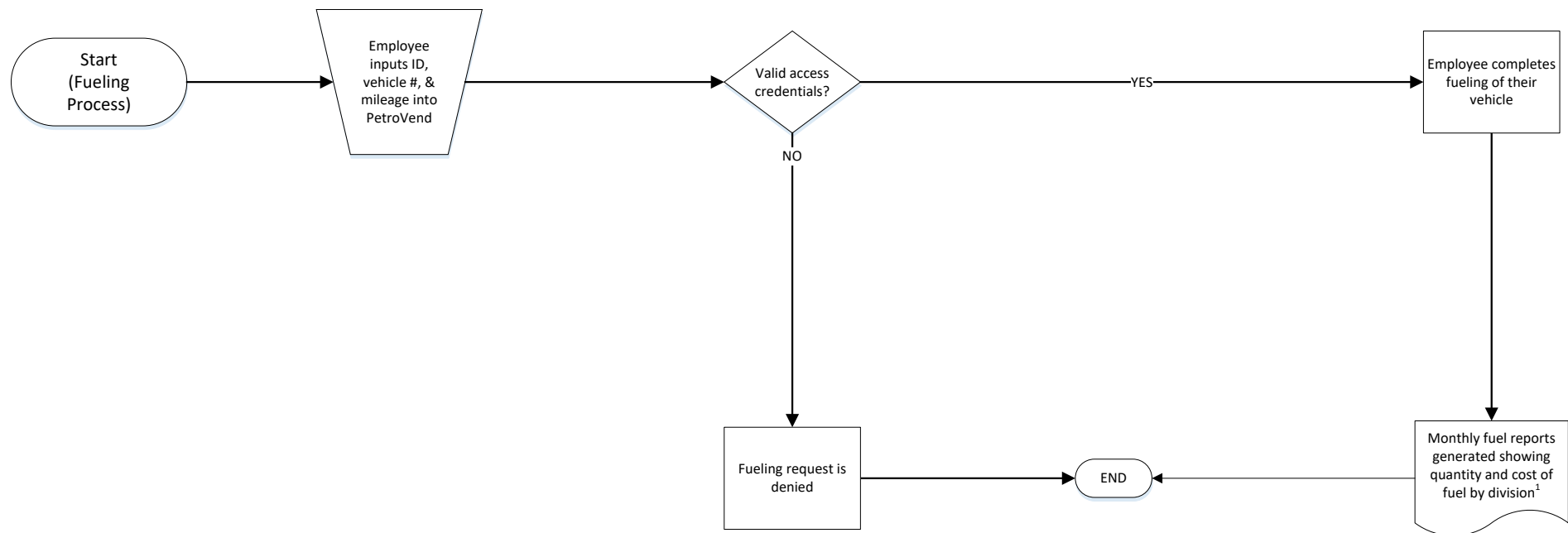
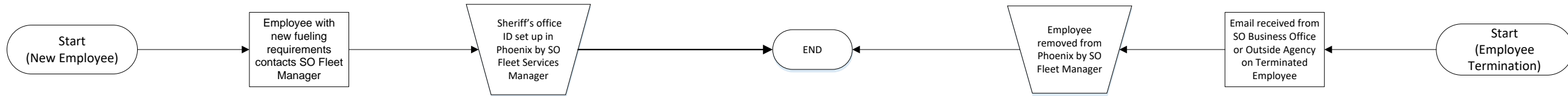


**Jefferson County Fuel Usage- Fleet Services
Purchase & Billing
12/7/17**





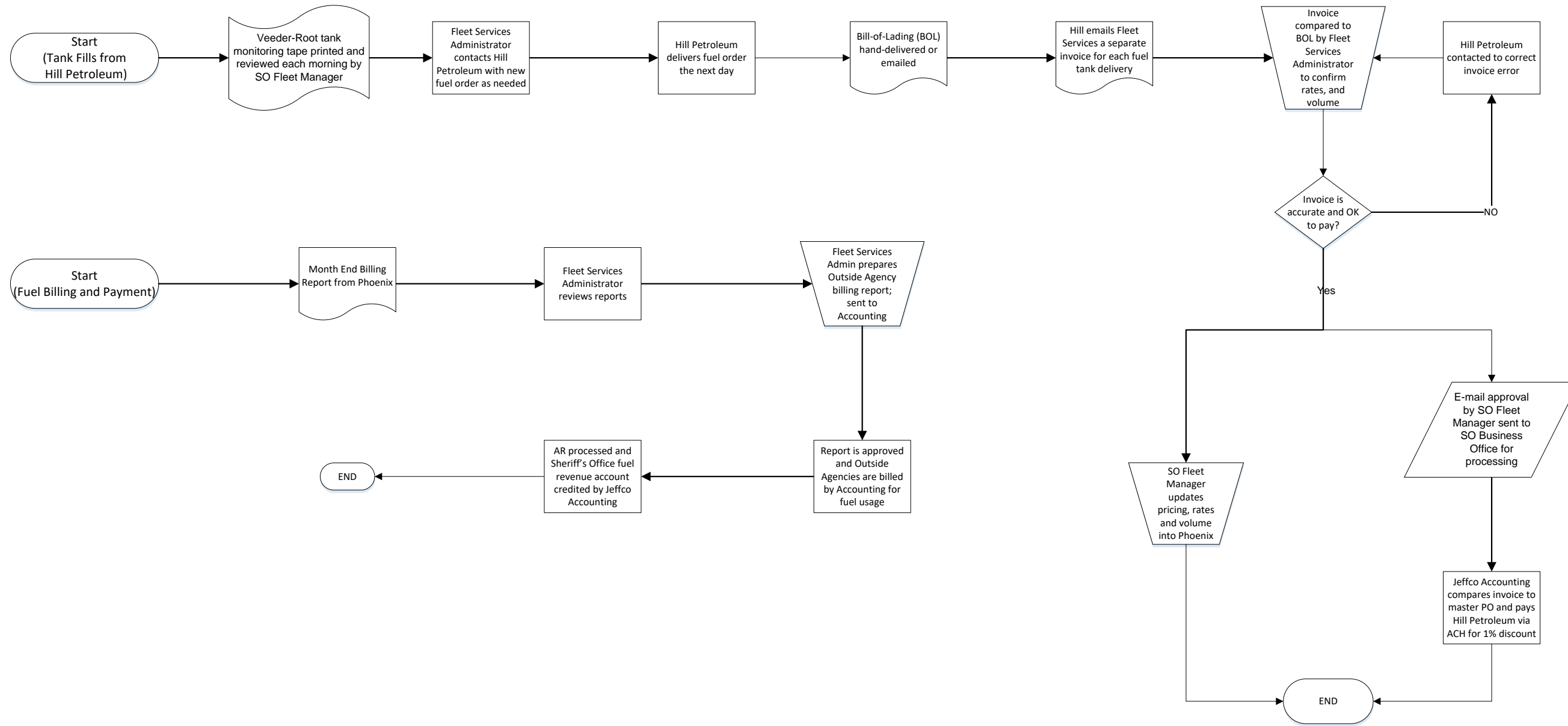
**Jefferson County Fuel Usage- Sheriff
User Set-Up & Fueling
12/14/17**



Footnotes:
1. No per-vehicle analysis is performed



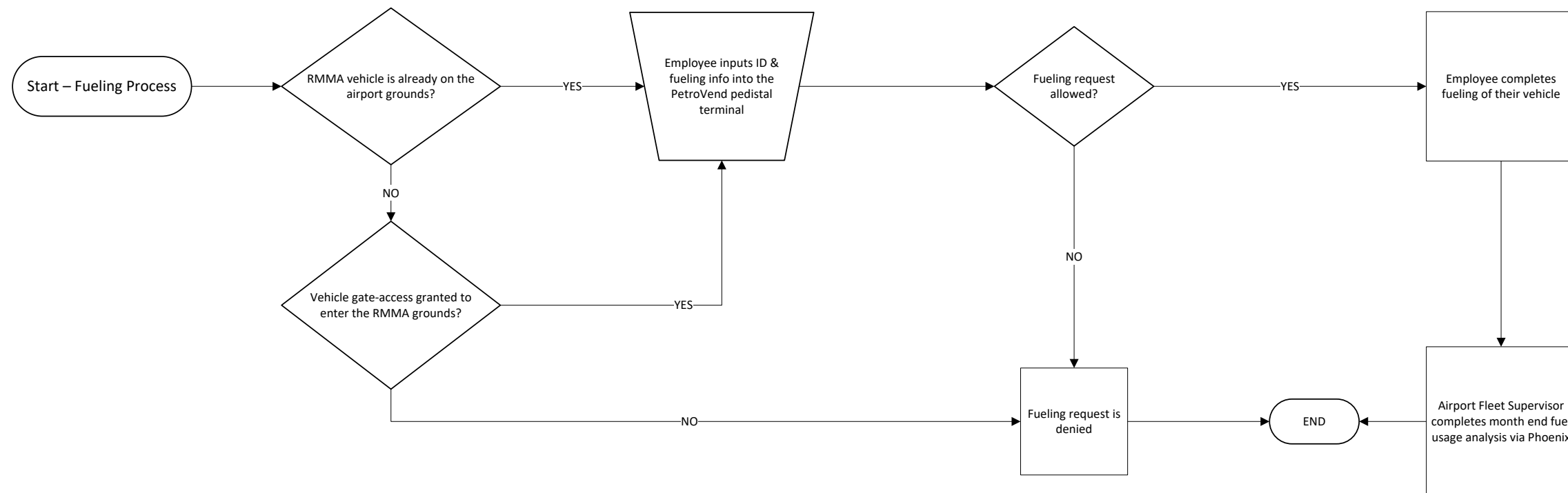
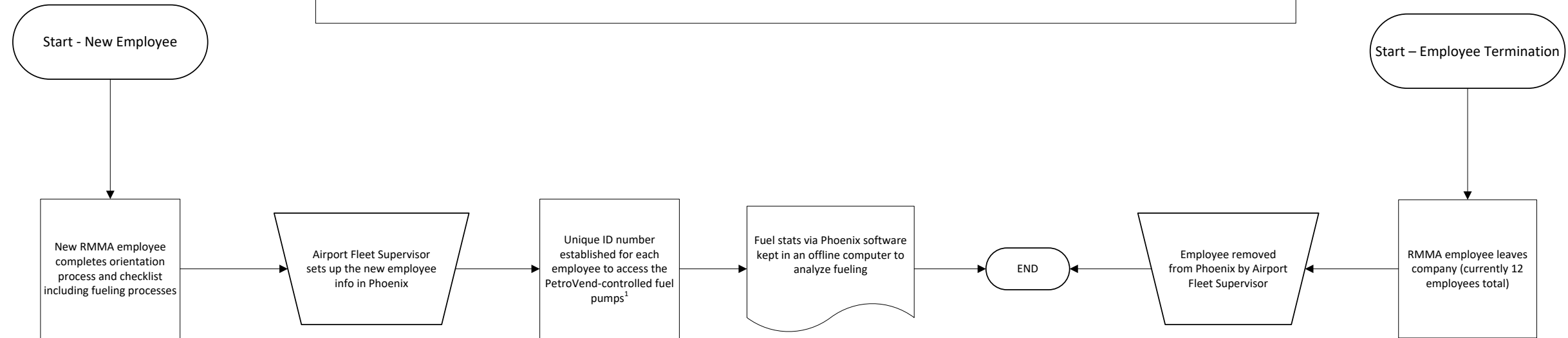
**Jefferson County Fuel Usage- Sheriff
Purchase & Billing
12/14/17**



Footnotes:
1. The Sheriff's office will re-order fuel when tank levels reach 1,000 gallons. Unleaded fuel will be reordered in quantities of 8,000 gallons; diesel fuel will be reordered in quantities of 20,000 gallons



**Jefferson County Fuel Usage- Rocky Mountain Metropolitan Airport
User Set-Up & Fueling
12/14/17**



Footnotes:
1. A generic ID code is set up on PetroVend for North Metro Fire's fuel usage, and not by their individual employees.



**Jefferson County Fuel Usage- Rocky Mountain Metropolitan Airport
Purchase & Billing
12/14/17**

