



CITY OF SAN ANTONIO

P.O. Box 839966
SAN ANTONIO TEXAS 78283-3966

October 13, 2014

Ivy R. Taylor
Mayor

Diego M. Bernal
Councilman, District 1

Keith Toney
Councilman, District 2

Rebecca J. Viagran
Councilwoman, District 3

Rey Saldaña
Councilman, District 4

Shirley Gonzales
Councilwoman, District 5

Ray Lopez
Councilman, District 6

Cris Medina
Councilman, District 7

Ron Nirenberg
Councilman, District 8

Joe Krier
Councilman, District 9

Mike Gallagher
Councilman, District 10

SUBJECT: Follow-up Audit Report of Building & Equipment Services Fuel Inventory Management

Mayor and Council Members:

We are pleased to send you the final report of the Follow-up Audit of Building & Equipment Services Fuel Inventory Management. This audit began in June 2014 and concluded with an exit meeting with department management in August 2014. Management's verbatim response is included in Appendix B of the report. The Building & Equipment Services Department management and staff should be commended for their cooperation and assistance during this audit.

The Office of the City Auditor is available to discuss this report with you individually at your convenience.

Respectfully Submitted,

Kevin W. Barthold, CPA, CIA, CISA
City Auditor
City of San Antonio

Distribution:

Sheryl L. Sculley, City Manager

Ben Gorzell, Chief Financial Officer

Jorge Perez, Director, Building & Equipment Services Department

Robert F. Greenblum, City Attorney

Leticia M. Vacek, City Clerk

Jill De Young, Chief of Staff, Office of the Mayor

Cary Clack, Communications Director, Office of the Mayor

Yolanda Oden, Executive Assistant to the Mayor, Office of the Mayor

Edward Benavides, Chief of Staff, Office of the City Manager

Donald Crews, Audit Committee Member

CITY OF SAN ANTONIO
OFFICE OF THE CITY AUDITOR



Follow-up Audit of Building & Equipment Services Department

Fuel Inventory Management

Project No. AU14-F01

October 13, 2014

Kevin W. Barthold, CPA, CIA, CISA
City Auditor

Executive Summary

As part of our annual Audit Plan approved by City Council, we conducted a follow up audit of the Building & Equipment Services Department (BESD) Fuel Inventory Management. The audit objectives, conclusions, and recommendations follow:

Has BESD effectively implemented action plans in response to recommendations in our Fuel Inventory Management audit (report issued October 31, 2012)?

We determined that BESD has made progress implementing controls to address the recommendations; however, improvements are still needed.

BESD management developed 11 action plans to address the findings from the previous audit. We determined that 7 action plans were implemented and 4 require additional effort.

We recommend the Director of BESD:

- Continue to develop, implement, and communicate policies and procedures for key fuel operations.
- Ensure that Fleet staff report excessive inventory variances to Texas Commission on Environmental Quality (TCEQ) in compliance with regulations. Also, update guidance to include reporting requirements and timeframes.
- Continue to address critical site maintenance issues and formalize the internal inspection process by ensuring that TCEQ requirements, other relevant inspection criteria, and corrective actions are properly documented.
- Develop an adequate review process to ensure fuel volumes are transferred correctly and that fuel valuations are calculated properly.
- Ensure that temperature compensated fuel volumes are used for year-end inventory valuations.

BESD Management's verbatim response is in Appendix B on page 10.

Table of Contents

Executive Summary	i
Background.....	1
Audit Scope and Methodology	1
Audit Results and Recommendations	3
A. Fuel Operations Management Oversight	3
B. Automated Fuel Management System.....	3
C. Fuel Inventory Accountability	6
D. Financial Reporting.....	6
Appendix A – Staff Acknowledgement	9
Appendix B – Management Response.....	10

Background

In October of 2012, the Office of the City Auditor completed a fuel inventory management audit of the Building & Equipment Services Department (BESD), Fleet Services Division (hereafter referred to as "Fleet"). The objective of that audit was:

Have adequate controls been implemented in the Fleet fuel inventory system?

The Office of the City Auditor issued a report that found controls over the Fleet fuel inventory system were not adequate. Control deficiencies were identified for the department's oversight of fuel operations, automated fuel management system, fuel inventory accountability, and financial reporting processes.

Audit Scope and Methodology

The audit scope was limited to the recommendations made in the original report and the corresponding action plans implemented between October 2012 and July 2014. We did not review inventory calculations for propane fuel tanks because they were not included in the original audit.

We interviewed fuel operations staff, and reviewed departmental policies and procedures, regulations for petroleum storage tanks, and other process documentation to gain an understanding of fuel inventory management and reporting processes. We reviewed certifications for automated fuel management systems and fuel system operators, fuel site assessments, and monthly inventory control reconciliation/investigation documentation. We compared internal inspection processes to the Texas Commission on Environmental Quality (TCEQ) compliance checklist. We also validated delivery variance calculations by tracing inventory reports back to bills of lading and invoices. Finally, we reviewed year-end inventory records, calculations, and adjusting entries in SAP for FY2013.

The basis for our tests included the Texas Administrative Code, departmental policies and procedures, City Administrative Directives, OPIS fuel pricing publications, and TCEQ regulations.

We relied on computer-processed data in automated fuel management systems and SAP to trace transactions through control processes. Our reliance was based on performing direct tests on the data rather than evaluating general and application controls. Our direct testing included validation of monthly inventory

variances, delivery variances, and year-end inventory adjustments. We do not believe that the absence of testing general and application controls had an effect on the results of our audit.

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.

Audit Results and Recommendations

A. Fuel Operations Management Oversight

Prior Recommendation

BESD Director should assign a manager to provide fuel operations oversight. Responsibilities should include providing a long term strategic focus on the City's Fuel Operations.

Status: Implemented

BESD hired a special projects manager to assist with fuel operations and TCEQ compliance as recommended. However, policies and procedures need to be strengthened to ensure adequate fuel operations oversight.

BESD developed policies and procedures for performing monthly business inventory reconciliations and fuel delivery variances. However, they did not include adequate procedures for supervisory review and regulatory compliance. Also the procedures had not been communicated effectively to Fuel Operations staff. Additionally, we noted that policies and procedures were not developed for other key fuel operations areas reviewed in the prior audit. Specifically, policies and procedures for conducting fuel inventories, accounting for and reporting fuel inventory, and fuel site maintenance were not developed.

Policies and procedures facilitate management oversight, preserve institutional knowledge, and provide staff with the guidance needed to perform responsibilities effectively.

Updated Recommendation

The BESD Director should continue to develop, implement, and communicate policies and procedures for key fuel operations.

B. Automated Fuel Management System

B.1 Prior Recommendation

The BESD Director should strengthen procedures to ensure fuel tank management systems are tested/calibrated annually as required by law.

Status: Implemented

We determined that as of July 2014, fuel management systems at all BESD fuel sites had been tested and calibrated in the last 12 months, as required by law.

B.2 Prior Recommendation

The BESD Director should ensure that Fleet reports all fuel inventory variances that exceed the EPA threshold to TCEQ as required.

Status: Partially implemented

Business inventory reconciliation (BIR) variances are properly monitored in accordance with TCEQ requirements for inventory control. The automated fuel management system automatically calculates the reconciliation that compares fuel volume based on deliveries and sales to fuel volumes based on tank sensor readings. It also calculates the BIR variance based on the TCEQ threshold of 1% of throughput plus 130 gallons. When this threshold is exceeded for two consecutive months, TCEQ requires fuel operators to file an *Incident Report* within 24 hours of discovery to report a potential leak. The cause of the variance should be investigated within 30 days and a *Release Determination Report* should be filed no later than 45 days from the date the variance was discovered. The *Release Determination Report* includes details regarding investigative steps, overall outcome, and corrective actions, if necessary.

Although BESD did file the required reports with TCEQ, it did not do so within the timeframes outlined above. Using December 2012 and March 2014 as a baseline, we identified a tank variance exceeding the TCEQ threshold in November and December 2013. Fleet staff did not submit the *Incident Report* until 3 days after the December variance was discovered. Additionally, Fuel Operations staff did not complete their investigation and submit the *Release Determination Report* until June 2014, approximately 129 days after the 45-day deadline.

This occurred because procedures for monitoring BIR variances did not include sufficient guidance to ensure regulatory compliance with TCEQ reporting requirements. Failure to comply with TCEQ reporting requirements for leak detection could result in fines and penalties for the City.

B.3 Prior Recommendation

BESD Director should re-inspect all City fuel sites and correct deficiencies giving priority to those violating TCEQ rules, API Standards, and fire codes.

Status: Partially implemented

BESD contracted with a third party vendor to perform site assessments for all fuel sites in September 2012. These assessments evaluated the overall condition of each fuel site in terms of compliance with TCEQ regulations, safety requirements and general maintenance. Fuel Operations provided evidence of

corrective action on 75% of critical issues¹ identified in the 2012 site assessments.

BESD hired a fuel operations technician to assist with fuel deliveries and site maintenance. BESD also developed an internal inspections process to address site maintenance issues on a weekly and monthly basis. The internal inspection checklist addresses most of TCEQ requirements related to site maintenance. Specifically, it addresses approximately 69% of TCEQ's maintenance related requirements.² For example, TCEQ requires any liquid and debris accumulation in sumps and manways be removed within 96 hours of discovery. While the internal inspection check list calls for BESD staff to inspect sumps; it does not address liquid and debris removal.

When performed in conjunction with other processes for automated fuel management system certifications and monitoring, the internal inspections process can assist with detecting and correcting TCEQ violations. Additionally, the checklist includes maintenance and safety components not included on the TCEQ Compliance Checklist.

Additionally, we could not determine whether inspections were performed effectively because BESD staff did not begin documenting inspections until April 2014. Properly documented inspections provide evidence of compliance with TCEQ requirements. Without proper documentation of inspection criteria and corrective action, management's assurance that inspections are effective is diminished.

Updated Recommendations

The BESD Director should:

B.2 Ensure that Fleet staff report excessive inventory variances in compliance with TCEQ regulations. The Director should also update guidance to include reporting requirements and timeframes.

B.3 Continue to address critical site maintenance issues and formalize the internal inspection process by ensuring that TCEQ requirements, other relevant inspection criteria, and corrective actions are properly documented.

¹ We identified 55 critical issues across all active fuel sites. Critical issues are those that referenced TCEQ requirements, suggested corrective action "as soon as possible", or in our judgment posed an obvious safety hazard.

² We identified 13 maintenance-related requirements on the TCEQ Compliance Checklist. These items are those that could be addressed during a visual inspection. They are not related to the design, construction, installation, or monitoring of an automated fuel management system. The internal inspection checklist addresses 9 of 13 requirements, or approximately 69%.

C. Fuel Inventory Accountability

C.1 Prior Recommendation

The BESD Director should initiate actions for the Veeder-Root system to develop its own tank charts for all fuel tanks with unconfirmed tank charts.

Status: Implemented

BESD provided a confirmed tank chart for all 30 diesel/gasoline fuel tanks in the testing population. Although BESD relies on the automated fuel management system at each site to determine fuel volumes, the charts are available for use in the event that the automated fuel management system is off line.

C.2 Prior Recommendation

The BESD Director should require all variances between delivered fuel volumes per bills of lading and delivered fuel volumes per the automated fuel management system be calculated and corrective action taken when variances exceed one percent.

Status: Implemented

Variances between the amount of fuel delivered and the amount of fuel invoiced are calculated and monitored to ensure that the City only pays for fuel that is actually received.

D. Financial Reporting

D.1 Prior Recommendation

The BESD Director should include all fuel trucks when reporting ending physical inventory.

Status: Implemented

BESD included all 7 of the City's fuel trucks in the FY2013 year-end inventory.

D.2 Prior Recommendation

The BESD Director should develop a review process to reduce errors in the physical inventory process.

Status: Not Implemented

BESD adjusts fuel inventory values in SAP on an annual basis, using fuel volumes from the automated fuel management system. However, BESD did not

develop an adequate review process to ensure that fuel inventory is accurately recorded and reported.

Volumes for 4 of 45 fuel tanks/fuel trucks were not accurately transferred from individual tank reporting sheets to Fiscal's summary inventory worksheet. These resulted from general clerical errors ranging from -3,800 gallons to +216 gallons. As a result of these errors, fuel volumes used to compute the value of fuel inventory were understated by approximately 5,426 gallons, or approximately \$16,000.

D.3 Prior Recommendation

The BESD Director should properly calculate and select either the lower of average cost or the market-price valuation method for ending fuel inventory valuations.

Status: Implemented

For FY2013, BESD chose to use the first-in, first-out inventory method for ending fuel inventory valuations. We determined that this method of inventory valuation was properly applied.

D.4 Prior Recommendation

The BESD Director should properly reduce recorded tank fuel volumes by accumulated tank water identified when taking physical inventories.

Status: Implemented

Fuel volumes were properly adjusted to account for accumulated tank water, as identified by the automated fuel management system.

D.5 Prior Recommendation

The BESD Director should adjust ending inventories to temperature compensated levels when computing the year-end dollar value of fuel.

Status: Not Implemented

BESD did not use temperature compensated volumes when reporting year end fuel inventory for FY2013. Fuel volumes expand at higher temperatures and contract at lower temperatures. The fuel management system provides actual tank volume readings based on current temperature. The system also calculates adjusted, or temperature compensated, volume readings based on a temperature of 60 degrees Fahrenheit (F).

When conducting fuel inventory valuations for FY2013, BESD used actual tank volume readings, rather than temperature compensated volumes to compute the year-end dollar value of fuel inventory.

While the net amount of the overall variance was immaterial, the City purchases fuel based on 60°F temperature compensated volumes. Accordingly, year-end fuel valuations should be based on temperature compensated volumes.

Updated Recommendations

The BESD Director should:

D.2 Develop an adequate review process to ensure fuel volumes are transferred correctly and that fuel valuations are calculated properly.

D.5 Ensure that temperature compensated fuel volumes are used for year-end inventory valuations.

Appendix A – Staff Acknowledgement

Mark Bigler CPA-Utah, CISA, CFE Audit Manager
Cynthia Hicks, CIA, CFE, Auditor in Charge

Appendix B – Management Response



CITY OF SAN ANTONIO

SAN ANTONIO TEXAS 78283-3966

September 24, 2014

Kevin W. Barthold, CPA, CIA, CISA
 City Auditor
 San Antonio, Texas

RE: Management's Acknowledgment and Corrective Action Plan for the Follow-up Audit Report of
 Building & Equipment Services Department – Fuel Inventory Management

- Fully Agree (provide detailed comments)
- Agree Except For (provide detailed comments)
- Do Not Agree (provide detailed comments)

Building & Equipment Services Department has reviewed the audit report and has developed the Corrective Action Plans below for the 4 "partially implemented" recommendations.

Recommendation				
B	<p>B. Automated Fuel Management System</p> <p>The BESD Director should:</p> <p>B.2 Ensure that Fleet staff report excessive inventory variances in compliance with TCEQ regulations. The Director should also update guidance to include reporting requirements and timeframes.</p> <p>B.3 Continue to address critical site maintenance issues and formalize the internal inspection process by ensuring that TCEQ requirements, other relevant inspection criteria, and corrective actions are properly documented.</p>	p. 5	Accept	<p>Jorge A. Pérez Director</p> <p>Completed (September 2014)</p> <p>Completed (September 2014)</p>

Recommendation				
<p><u>Action plan:</u></p> <p>B.2 BESD developed policies and procedures in response to the previous fuel audit to ensure fuel inventory variances are reported to TCEQ and as a result all variances required to be reported to TCEQ were completed. As a result of the discussions during the current audit, BESD saw an opportunity to strengthen the current policies and procedures to be more detailed regarding TCEQ regulations, requirements and most specifically, detailed timeframes for reporting. The policies and procedures have been updated and trainings have been provided to fuel staff.</p> <p>B.3 In response to the previous audit, BESD developed a checklist to document and ensure TCEQ inspection requirements were met as well as document preventive maintenance completed for fuel sites where none previously existed. BESD has revised the checklist to clearly define which TCEQ regulations are being followed to ensure compliance. Checklist was also revised to document inspections and maintenance performed by vendors.</p>				
D	<p>D. Financial Reporting</p> <p>The BESD Director should:</p> <p>D.2 Develop an adequate review process to ensure fuel volumes are transferred correctly and that fuel valuations are calculated properly.</p> <p>D.5 Ensure that temperature compensated fuel volumes are used for year-end inventory valuations.</p>	p. 8	Accept	<p>Jorge A. Pérez Director</p> <p>Completed (September 2014)</p> <p>Completed (August 2014)</p>
<p><u>Action plan:</u></p> <p>D.2 Inventory process was revised to utilize the automated tank monitoring system in place of physical inventories. The automated system accounts for fuel with increased accuracy and is in line with industry best practices for fuel inventory. Fuel inventory reconciliation procedures have been developed to ensure proper fuel valuation and detect any errors or inconsistencies.</p> <p>D.5 Fuel policies and tracking documentation for collecting and reporting fuel volumes have been modified to use temperature compensated fuel volumes.</p>				

Follow-up Audit of Building & Equipment Services Department
Fuel Inventory Management

We are committed to addressing the recommendations in the audit report and the plan of actions presented above.

Sincerely,



Jorge A. Pérez
Director
Building & Equipment Services Department

9/24/14

Date



Ben Gorzell
Chief Financial Officer
City Manager's Office

9/24/14

Date