MANAGEMENT AUDIT REPORT

OF

RESIDENTIAL COLLECTIONS
SOLID WASTE MANAGEMENT DEPARTMENT

REPORT NO. 13-105

City of Albuquerque
Office of Internal Audit

Residential Collections – Solid Waste Management Department
Report No. 13-105

Executive Summary

Background: The Office of Internal Audit (OIA) conducted a management audit of the Residential Collections Division operated by the Solid Waste Management Department (SWMD). The audit was included in the fiscal year (FY) 2013 approved audit plan.

On a weekly basis, the Residential Collections Division provides curbside residential automated trash collection service for approximately 180,000 residences, and responds to requests for large-item pickups. Other SWMD Divisions provide significant support for the Residential Collections Division.

SWMD has deployed various technologies to increase efficiencies and improve monitoring capabilities. These include GPS vehicle tracking, time and distance based route optimization, and automated timekeeping.

SWMD and the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) jointly bill customers for water and solid waste services. The billing system is a strength in SWMD's system of internal controls, as it was designed specifically for utility vendors, utilizes an industry-leading relational database management system, and is web-based, making it platform independent.

Objective: **Do the controls in place ensure full collection of residential fees as defined in § 9-10-1-11?**

- SWMD lacked a written procedure for processing customer account adjustments, credits, and error corrections. SWMD was following an established process for authorizing and applying adjustments and credits and new employees had been verbally trained on the process. Without defined policies and procedures, unauthorized credits or adjustments could be posted to customer accounts, effectively providing residential collections services free of charge.
- SWMD does not have a consistent procedure for deactivating user IDs on the billing system. Although the billing system requires that user IDs for terminated employees remain on the system for reference, such IDs should be managed so as to have no rights to access billing data. If left active, user ID's for terminated and transferred employees could be used to gain access to the customer billing system and view personally identifiable information (PII) of SWMD customers or post unauthorized transactions.

Objective: **Do the monitoring controls in place provide effective tracking and control of daily residential collection services?**

- SWMD management has not enforced timekeeping policies governing supervisory approval of non-exempt employee timecards. The Payroll Officer processes time even though it has not been approved by a supervisor. As a result, the supervisors have not been held accountable for reviewing and approving employee timecards. Lack of supervisory review may contribute to excessive or unauthorized overtime.
- In an average month, the City's 311 center receives approximately 2,000 calls for missed refuse pickups (commercial and residential combined). Although SWMD usually resolves missed pickup calls within three days, there is no follow-up analysis to determine if there are recurring problems with particular drivers or routes. Without ongoing analysis, SWMD may be missing opportunities to improve performance of residential collection activities.

Objective: **Are controls in place to ensure complete, accurate, and consistent recording of residential load weights and calculation of compaction rates?**

- The scale house had established procedures to follow in the event of a disruption to electronic information systems. Personnel had been verbally trained on the procedures. The procedures included manual data-collection forms to capture tonnages by truck during a disruption. However, the procedures had not been committed to writing. The lack of written procedures may contribute to missed data collection when regular data processing systems are unavailable.

Objective: **Are controls sufficient to ensure accurate and consistent cost of service (COS) calculations?**

- SWMD utilizes a public accounting firm with appropriate industry specialization to oversee production of the annual COS update.
- A consistent methodology is utilized to update the COS.
- The COS is updated to reflect changes in SWMD programs and services.
- Results are reviewed for reasonableness prior to finalization.

Recommendations and management responses are included in the audit report.

City of Albuquerque

Office of Internal Audit

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 30, 2013

Accountability in Government Oversight Committee
City of Albuquerque
Albuquerque, New Mexico

Audit: Management Audit
Solid Waste Management Department
Residential Collections
Audit No. 13-105

FINAL

INTRODUCTION

The Office of Internal Audit (OIA) conducted a management audit of the Residential Collections Division operated by the Solid Waste Management Department (SWMD). The audit was included in the fiscal year (FY) 2013 approved audit plan.

On a weekly basis, the Residential Collection Division provides curbside residential automated trash collection service and curbside recycling for Albuquerque residents for a flat monthly fee. Approximately 180,000 residences are serviced weekly, on designated pickup days. The monthly fee also includes on-request large item pickups. Rates are based on a comprehensive annual Cost-of-Service study, which combines the costs for collection with the costs for disposal including capital costs for equipment replacement. The Residential Collections Division is currently rolling out its new automated recycling program. Automated cart recycling is expected to increase public participation in recycling, thereby turning waste into a marketable commodity and reducing the amount of solid waste going into the landfill.

Approximately sixty residential collections drivers and five Solid Waste supervisors manage the daily pickup process. The Residential Collections Division is supported by other SWMD divisions. Components of these divisions that support Residential Collections include Management Information Systems, Customer Service & Billing, Communications Center, Financial Services, and Operations Review.

SWMD has increased operational efficiencies through deployment of various technologies. All collection vehicles are equipped with GPS units to track route progress, and historical GPS data is available for further analysis. These monitoring controls provide effective tracking and control

of daily residential collection services. The Management Information Systems group periodically optimizes routing based on historical route completion times combined with recent measurements of street segments, speed limits, average lift times and distances to the Cerro Colorado landfill. Future deployment of radio frequency identification (RFID) technology on collection vehicles and automated collection carts will enhance accountability and efficiency, as the technology will enable proof-of-service and automated tracking of automated collection assets.

Customer Service & Billing collaborates with the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) to jointly bill customers for water and solid waste services. The billing system is a strength in SWMD's system of internal controls, as it was designed specifically for utility vendors, utilizes an industry-leading relational database management system, and is web-based, making it platform independent. Customer penalties for non-payment include property liens and water service shutoff, which enhance SWMD revenue collection efforts. ABCWUA maintains an offsite replica datacenter (hot site) that can take the place of the principal datacenter in the event of a disaster or disruption.

The Communications Center has a well-defined process for resolving missed pickups, other complaints, and requests for service and diligently works to resolve such matters within four days. Code Enforcement is available to interact with customers and verify vacant residences.

The Financial Services unit oversees scale house operations at Cerro Colorado landfill. Scale house activities include recording tonnages for all waste loads delivered to the landfill. Accurate and complete measurement of waste tons is essential for statistical purposes, as these values are used extensively in the annual Cost of Service study, in landfill compaction rate estimates, and in departmental performance measures. Financial Services also includes payroll processing. An electronic timekeeping and attendance system implemented in September 2012 greatly improved the efficiency of payroll processing.

AUDIT OBJECTIVES

The objectives of the audit were to determine:

- *Revenue cycle*: Do the controls in place ensure full collection of residential fees as defined in § 9-10-1-11 ROA 1994?

- *Collections (pickup) process*: Do the monitoring controls in place provide effective tracking and control of daily residential collection services?

- *Disposal process*: Are controls in place to ensure complete, accurate, and consistent recording of residential load weights and calculation of compaction rates?
- *Cost of Service model*: Are controls sufficient to ensure accurate and consistent cost of service calculations?

SCOPE

Our audit did not include an examination of all functions and activities of the SWMD. Our scope was limited to key operational processes and practices in force as of FY2013 related to residential automated trash collection and disposal, and collection of associated revenues for these services. Automated residential recycling was excluded because the rollout of automated carts is not scheduled to be completed until the second quarter of FY2014. The scope focused on relevant operational units within the Residential Collections Division and other SWMD divisions that provide significant support services to residential collections efforts, notably the Administrative Services Division.

This report and its conclusions are based on information taken from a sample of transactions and do not intend to represent an examination of all related transactions and activities. The audit report is based on our examination of activities through the completion of fieldwork, July 15, 2013, and does not reflect events or accounting entries after that date.

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.

METHODOLOGY

Various methodologies were utilized to achieve the audit objectives, including:

- Interviewed key personnel at SWMD and ABCWUA
- Developed an understanding of information systems and technologies in use, including billing, timekeeping, route optimization, GPS tracking, and collection load measurement
- Reviewed recordkeeping methods for customer data and service points
- Analyzed the revenue and cash receipts cycles
- Tested internal controls over low income credits, service suspensions, and late fees for conformance with the Municipal Refuse Collection Service Ordinance
- Verified proper authorization of account credits and adjustments
- Observed a residential collection route

- Observed a residential collections supervisor in the field
- Reviewed timekeeping records and timecard approvals
- Analytically reviewed overtime trends
- Reviewed dispatch procedures for missed pickups and complaints
- Observed scale house processing for weighing collection loads
- Observed disposal process at Cerro Colorado landfill

FINDINGS

The following findings concern areas that we believe could be improved by the implementation of the related recommendations.

1. THE SOLID WASTE MANAGEMENT DEPARTMENT SHOULD ENSURE THAT SUPERVISORS APPROVE TIMECARDS FOR HOURLY RESIDENTIAL COLLECTIONS PERSONNEL EACH PAY PERIOD.

   A review of timecards for residential collections drivers for 13 pay periods in FY2013 found that 75% of the timecards lacked biweekly final supervisor approval. SWMD's *Timekeeping Ethics Policy* requires supervisor approval of timecards: "The final approval by supervisors must be by 7:00am on the Monday that payroll is to be processed. Payroll can also be approved after the final clock out on Friday."

   SWMD management has not enforced timekeeping policies governing supervisory approval of non-exempt employee timecards. The Payroll Officer processes time even though it has not been approved by a supervisor. As a result, the supervisors have not been held accountable for reviewing and approving employee timecards. Lack of supervisory review may contribute to excessive or unauthorized overtime.

   RECOMMENDATION

   SWMD should enforce its Timekeeping Ethics Policy and ensure that supervisors are approving biweekly timecards for all hourly employees. Final approval of timecards for all non-exempt hourly employees should be completed each pay period by the biweekly Monday deadline. When an employee's supervisor is not available, another supervisor should be designated to approve timecards.

RESPONSE FROM SWMD

"Solid Waste Management Department (SWMD) agrees with the finding and recommendation. SWMD began implementing the Kronos payroll system in September 2012. One of the desirable features of Kronos is the ability for supervisors to review employee timecards on a daily basis on-line. Supervisors can identify problems or issues with the time cards and resolve any errors the same day. At the time of implementation, we thought supervisors would be approving time cards daily and that is how the supervisors were initially trained. It was only after going live that we discovered we can only approve time cards at the end of the pay period. This misconception caused confusion as to the approval process by supervisors and some supervisors stopped approving time cards altogether. During this time, the primary focus of the department and Kronos consultants was on getting SWMD employees paid. The efforts for several months after going live were spent programing the Kronos software to meet the department's needs and making sure employees were able to clock in and out. Another factor that contributed to time cards not being approved by supervisors was with the delegation process, when a supervisor is out and he delegates the approval process to another supervisor. At the time of Kronos implementation and for several months afterward, Kronos consultants had not programed the delegation processes into SWMD's software. To ensure supervisors understand the approval process for time cards, the Payroll Officer held one-on-one training for all supervisors July 31 through August 8. The training also included the delegation process for supervisors. Since training was completed, we have gone through one pay period where approximately 95% of supervisors approved employee time cards."

ESTIMATED COMPLETION DATE

"Our goal is to have 100% participation by supervisors by October 31, 2013."

2. THE SOLID WASTE MANAGEMENT DEPARTMENT SHOULD PUBLISH A WRITTEN POLICY FOR REVIEW AND APPROVAL OF CUSTOMER CREDITS AND ADJUSTMENTS.

SWMD has an established process for Solid Waste account credits, billing adjustments and errors; however, a written procedure was not available. Administrative Instruction 2-2 requires City departments to document Accounts Receivable procedures. Procedures should identify by position title who has responsibility for entry and approval of transactions.

SWMD was following an established process for authorizing and applying adjustments and credits. New employees had been verbally trained on the process. The original document was apparently lost, as a copy of the original document could not be located either in hard copy or electronically. Without documented policies and procedures, guidelines may be open to interpretation and required approvals might not be obtained. Unauthorized credits or adjustments could be posted to customer accounts, effectively providing City services free of charge.

RECOMMENDATION

SWMD should issue a written policy for approval of credits and adjustments to customer accounts. The policy should clearly identify the requirements and standards for granting credits and adjustments. The policy should also identify required management signoffs and dollar thresholds. The policy should be reviewed at least annually and submitted to the Department of Finance and Administration (DFAS) for review.

RESPONSE FROM SWMD

"Solid Waste Management Department agrees with the finding and recommendation. The policy on adjustments was at some point documented by the Department and followed by the Quality Assurance and Billing Sections. However, the Department was unable to locate the actual written document. The process has been in practice for several years and new employees are trained to follow it. The Auditor found that the process was being followed. The Department has rewritten the policy as it could not be located either in hard copy or electronically. The written policy has been submitted to the Auditor. The Department will review the policy annually and submit it to the Department of Finance and Administration (DFAS) for review."

3. THE SOLID WASTE MANAGEMENT DEPARTMENT SHOULD REFINE THE PROCEDURE FOR DEACTIVATING TERMINATED AND TRANSFERRED EMPLOYEES FROM THE BILLING SYSTEM.

User ID's for terminated and transferred employees are not consistently deactivated from the billing system; access to City information systems should be limited to authorized individuals who have a current need for such access. User IDs for two terminated employees were found to still have access rights; User IDs for an additional 40 employees retained limited access.

The City's Sensitive Data Policy states that, "Access to sensitive data stored in City databases and servers will be restricted to only those individuals with an official need to access the data." Terminated and transferred employees no longer have the need for such access and should be promptly deactivated when their status changes. If left active, user ID's for terminated and transferred employees could be used to gain access to the billing system and view personally identifiable information (PII) of SWMD customers or post unauthorized transactions.

SWMD does not have a consistent procedure for deactivating user IDs on the billing system. Although the billing system requires that user IDs for terminated employees remain on the system for reference, such IDs should be managed so as to have no rights to access billing data.

RECOMMENDATION

SWMD should refine the procedure for deactivating billing system access for terminated and transferred employees. The process should ensure that such login credentials be deactivated as soon as the employee no longer has a business need to access the billing system. Deactivated credentials should have no access to system functionality. SWMD should also consider periodic reviews of billing system access rights, to ensure that all user IDs are authorized and that assigned user rights are appropriate for job responsibilities.

RESPONSE FROM SWMD

"Solid Waste Management Department agrees with the finding and recommendation. Access to the Customer Care and Billing system (CC&B) requires user profiles to be set up in both the billing system itself and also in an additional database (Weblogic). If a user profile exists in CC&B and not Weblogic, the user will not be allowed access to CC&B, and vice versa. The two terminated employees that still had access rights did have user profiles in both systems. These two profiles have since been deactivated. The user profiles for the 40 employees believed to retain limited access only existed in CC&B, not Weblogic. Therefore, they could not log in to CC&B because their profiles did not exist in both systems. The 40 employees were linked to a "Purged" user profile. The Purged profile still allowed access to some screens in CC&B that should have been deleted from the profile. The Purged profile has since been modified as a whole. The users in the Purged profile are only kept for reference purposes and no longer have access to any screens.

"Maintenance on terminated employees' access to CC&B has been intermittent. This is due to the fact that employees are located in different divisions and occasionally, at different sites entirely. The CC&B Administrator is not customarily informed when employees are terminated and no longer require access. The CC&B Administrator will begin bi-annual reviews of CC&B user profiles. The list of users will be sent to each Superintendent with a memo requiring review and reauthorization of user access."

4. THE SOLID WASTE MANAGEMENT DEPARTMENT SHOULD ANALYZE MISSED RESIDENTIAL PICKUP CALLS TO IDENTIFY POTENTIAL PROCESS IMPROVEMENTS.

In an average month, the City's 311 center receives approximately 2,000 calls for missed refuse pickups (all collections, including commercial as well as residential). Although SWMD usually resolves missed pickup calls within three days, there is no follow-up analysis to determine if there are recurring problems with particular drivers or routes. The percentage of residential account missed pickup calls to total pickups is a departmental key performance measure. Without ongoing analysis, SWMD may be missing opportunities to improve performance of residential collection activities.

SWMD is promptly responding to 311 calls for missed pickups, but is missing opportunities to analyze and identify possible root causes. Per discussion with operational personnel, the priority is to re-service the address as soon as possible. Although detailed information such as service address, route number, and complaint summary is available, no further analysis is performed.

RECOMMENDATION

SWMD should regularly analyze missed residential pickup calls to identify potential process improvements. Such analysis may identify root causes of recurring process problems that can be controlled or minimized by SWMD, thereby reducing the volume of 311 missed pickup calls and improving service performance.

RESPONSE FROM SWMD

"Solid Waste Management Department agrees with the finding and recommendation. The Department has on occasion reviewed data to identify specific root causes of recurring service problems such as residential missed pickups associated with particular drivers and/or specific areas. To date, the

Department has not found any definitive patterns. However, the Department will work with the newly hired in-house GIS Specialist to create and provide regular reports to the Collections Superintendent for analysis."

5. THE SOLID WASTE MANAGEMENT DEPARTMENT SHOULD DEVELOP A WRITTEN PROCEDURE FOR MANUALLY RECORDING TONNAGES AT THE SCALE HOUSE IN THE EVENT THAT ELECTRONIC INFORMATION SYSTEMS ARE UNAVAILABLE.

There was no written procedure describing steps to follow for manually recording load weights in the event of an extended information systems interruption. Tonnage statistics are required for billing of external customers, as inputs in the annual Cost-of-Service model, and for calculating the landfill compaction rate.

Government Finance Officers Association (GFOA) standards state that written procedures should exist to mitigate disruptions that could result from a technology failure. At a minimum, procedures should (1) Make provisions for the alternative processing of data following a disaster and (2) Provide detailed instructions for restoring electronic files. The lack of written procedures may contribute to missing data collection when regular data processing systems are unavailable. Missed data collection may cause underreporting of daily landfill additions.

The scale house had established procedures to follow in the event of a disruption to electronic information systems. Personnel had been verbally trained on the procedures. The procedures included manual data-collection forms to capture tonnages by truck during a disruption. However, the procedures had not been committed to writing.

RECOMMENDATION

SWMD should develop a written procedure for manually recording tonnages at the scale house in the event that information systems are unavailable. The procedure should have sufficient detail to instruct an alternate employee to perform the tasks should the regular employee be on leave or otherwise unavailable.

The procedure should define
(1) When to activate,
(2) The sequence of required steps,
(3) Mandatory data elements,
(4) Person(s) responsible for performing each step, and
(5) Process for updating information systems upon restoration of services.

RESPONSE FROM SWMD

"Solid Waste Management Department agrees with the finding and recommendation. The Cerro Colorado Landfill has a gasoline generator on site that will kick-on in the event of an electrical power failure. If the generator does not kick-on or if there is a failure of the information system, the scale house cashiers are trained to manually record tonnages. Although all cashiers have been trained in the manual procedures, the procedures were not in a written form. The SWMD Fiscal Officer met with the scale house cashiers and developed the written procedures for recording manual tonnages. The written procedures were then sent to the Office of Internal Audit on June 7, 2013."

CONCLUSION

The Solid Waste Management Department has opportunities for improving its system of internal controls. Such controls are vital to ensuring accountability, consistent operations and integrity of information assets.

By implementing the recommendations in this report, SWMD can improve its system of internal controls as it continues to improve delivery of premier residential solid waste collections services to the City of Albuquerque.

We appreciate the assistance and cooperation of Solid Waste Management Department personnel during the audit.

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Senior Information Systems Auditor

REVIEWED AND APPROVED:

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