

**SOLID WASTE DEPARTMENT
COMMERCIAL OPERATIONS
AUDIT 06-17
MARCH 9, 2007**



CITY OF TAMPA

Pam Iorio, Mayor

Internal Audit Department

Roger Strout, Internal Audit Director

March 9, 2007

Honorable Pam Iorio
Mayor, City of Tampa
1 City Hall Plaza
Tampa, Florida

RE: Solid Waste Department, Commercial Operations, Audit 06-17

Dear Mayor Iorio:

Attached is the Internal Audit Department's report on the Solid Waste Department's Commercial Operations.

We thank the management and staff of the Solid Waste Department, Technology and Innovation, and the Utility Accounting Division for their cooperation and assistance during this audit.

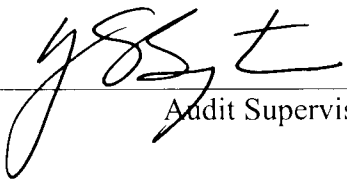
Sincerely,

Roger Strout
Internal Audit Director

cc: Darrell Smith, Chief of Staff
Bonnie Wise, Revenue & Finance Director
Steve Daignault, Public Works & Utility Services Administrator
David McCary, Solid Waste Director
James Buckner, Technology and Innovation Director

**SOLID WASTE DEPARTMENT
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Auditor


Audit Supervisor


Audit Director

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INTRODUCTION

The Solid Waste Department is a chartered department, which has “cognizance of all matters relating to sanitation including the collection, transportation, recycling, reclamation, conversion, and disposal of garbage and other refuse.” The duties and responsibilities of the Solid Waste Department are described in Chapter 26, Article IV of the City of Tampa Code, which is known as the “City of Tampa Solid Waste Ordinance.”

The ordinance provides that all solid waste, except prohibited wastes, become the exclusive property of the City once placed in a permitted bin or set out for collection. It places the duty to collect or cause to collect all solid waste under the direction of the Solid Waste Department. It also provides a “right to service” to any owner, occupant, or tenant to collection and disposal service upon request for service, payment of required deposit, and other consideration.

The Department’s total projected FY06 budget allocation was \$68,845,976 and had 235 authorized positions. Its goals included expanding fully automated collection service, increasing recycling participation, expanding separate yard waste collection service, and maintaining a high on-time collection rate.

The Commercial Services Division is responsible for providing the collection of commercial carts, bins, compactors, and roll-off containers to customers who must, by City Ordinance, use commercial container service to dispose of their refuse. Customers are primarily businesses and multi-family residential complexes. Resolution No. 2005-1163, passed by City Council on September 8, 2005, established the current schedule of solid waste rates.

STATEMENT OF OBJECTIVES

This audit was conducted in accordance with the Internal Audit Department's FY06 Audit Agenda. The objectives of this audit were to determine whether:

1. The solid waste container inventory was accurate and complete.
2. Commercial solid waste services were accurately billed.
3. Customers were satisfied with commercial solid waste services.

STATEMENT OF SCOPE

The audit tested commercial solid waste accounts and container inventory balances as of September 1, 2006. Original records as well as copies were used as evidence and verified through physical examination.

STATEMENT OF METHODOLOGY

The sample size and selection were statistically generated using a desired confidence level of 90 percent, expected error rate of 5 percent, and a desired precision of 5 percent. Statistical sampling was used in order to infer the conclusions of test work performed on a sample to the population from which it was drawn and to obtain estimates of sampling error involved. When appropriate, judgmental sampling was used to improve the overall efficiency of the audit.

To achieve the audit's objectives, reliance was placed on computer-processed data contained in the City's utility accounting system (Multiple Service System or MSS). This system was previously determined to be reliable and no additional work was necessary. The container inventory and the Sanitation Routing System (SRS) were not relied on, but were tested for accuracy and completeness as part of this audit.

STATEMENT OF AUDITING STANDARDS

We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to afford a reasonable basis for our judgments and conclusions regarding the organization, program, activity, or function under audit. An audit also includes assessments of applicable internal controls and compliance with requirements of laws and regulations when necessary to satisfy the audit objectives. We believe that our audit provides a reasonable basis for our conclusions.

AUDIT CONCLUSIONS

Based upon the test work performed and the audit findings noted below, we conclude that:

1. The container inventory and Sanitation Routing System contained errors and omissions.
2. Commercial solid waste services were not always billed for the services provided.
3. Customers were generally satisfied with commercial solid waste services.

While the findings discussed below may not, individually or in the aggregate, significantly impair the operations of the Solid Waste Department, they do present risks that can be more effectively controlled.

CONTAINER INVENTORY & COMMERCIAL SERVICE BILLING

Background

The container inventory is maintained in a stand-alone database. Service routing, pickup frequency, and container locations are managed in an application called the Sanitation Routing System (SRS). The City's Multiple Service System (MSS) performs the billing calculations. Other than being able to access the inventory database through SRS, there are no interfaces between these applications. Common data must be manually entered separately into each program, which increases the opportunity for the introduction of errors into the systems and multiplies the effort required.

It is important to note that the Solid Waste Department has always been concerned about the inconsistencies resulting from the use of three independent systems. In 2002, a new system was identified which was a comprehensive solid waste operating system and would replace the "technically obsolete, functionally frozen, DOS based" SRS system. However, after detailed implementation planning and further review, it was learned that the new Tower System by Transcomp would require more than 30 interfaces with MSS for billing through the City's Utility Billing System, which would be technically challenging and costly to maintain.

As a result, in 2006 it was determined that most of the functionality needed by Solid Waste could be built into the City's existing MSS system. In late 2006, the Solid Waste Department and Technology and Innovation initiated a project to consolidate all customer service, operational, and billing processes into one system (MSS) in order to improve efficiency, eliminate burdensome duplication of information, and provide expanded analysis and reporting capabilities. The first phase of the project is scheduled for completion in early 2007 and the entire project should be completed by year-end.

Container Inventory

To determine whether the container inventory was accurate and complete, three separate tests were performed.

Test 1 – SRS-MSS Comparison

Technology & Innovation generated an electronic file of all containers in inventory as of September 1, 2006. The file contained 6,468 records. Using the customer account number as the primary key, the file was compared to an MSS file of all commercial solid waste accounts. The comparison resulted in 298 exceptions where the customer account number recorded in SRS did not have a match in MSS. A statistical random sample of the exceptions resulted in the selection of forty-four (44) accounts for additional testing.

Test Results:

- Eighteen (18) accounts were "Active," but billed to another account number in MSS. These were not considered exceptions.

- Fifteen (15) accounts were not active and had a container on the property. Eleven (11) of these were determined to be new businesses paying for service under a different account number. One (1) business had closed and the container removed subsequent to site visit. SRS customer information for these 12 was out-of-date. The final three (3) accounts had a container on site, but the businesses were closed or had a new owner. The containers contained garbage and remained on the drivers' route sheets. Unbilled monthly service amounted to \$249.45 for the sample. When extrapolated to the population, unbilled monthly service was estimated to be \$5,068.37.
- Eleven (11) accounts were not active and did not have containers on site. SRS container information was out-of-date.

Test 2 – Fixed Assets

A listing of compactors and roll-off containers was obtained from the City's fixed asset system (FAACS). The listing contained 234 assets. Thirty (30) assets were randomly selected for testing. The assets were traced to the SRS to obtain the current location of the asset in order to verify their existence.

Test Results:

- Three (3) assets could not be located (10% exception rate). One of these was not listed in Solid Waste's inventory database.
- Two other containers had incorrect container identification numbers in FAACS.
- Three container locations were inaccurate and required assistance to locate.
- Unassigned containers stored at McKay Bay were not issued based on any criteria, such as, age, condition, or periodic rotation into service.

Test 3 – Recent Purchases Test

The fixed asset listing was sorted by acquisition date. The most recent purchases were traced to their purchase orders and into SRS. All were reconciled to the purchase order without exception. Three containers had incorrect identification numbers entered in FAACS.

Commercial Service Billing

To determine the accuracy of commercial service billing, a list of commercial customers with City issued containers was created. This was done by obtaining a file from Technology and Innovation of all commercial accounts. The file was filtered to eliminate non-City containers to ensure the customer was serviced by the City. After eliminating duplicate customer numbers, the list contained 2,860 customers with city issued containers.

A statistical random sample of 45 accounts was extracted for testing. Using SRS as the source for the level of service provided, customer billings were obtained from the MSS application and recalculated.

Test Results:

Eight (8) customer accounts had billing errors (17.8% error rate). The total dollars of these errors amounted to \$1,866.85 in unbilled monthly charges. When extrapolated to the population of 2,860, there is a potential for 508 errors and unbilled monthly revenue of approximately \$118,648.

Issues Needing Resolution

Based on the tests described above, it was concluded that the container inventory and the Sanitation Routing System contained errors and omissions, that commercial solid waste services were not always billed for the services provided, and that the following issues needed to be resolved:

Issues that should be resolved by the current system integration project:

- SRS customer and container information was not always accurate.
- After accounts were closed, containers were not always removed, which allowed new occupants to receive free service.
- Fixed assets (containers) were not adequately controlled or safeguarded causing their misplacement or loss.
- Discrepancies in the data contained in the SRS and MSS applications that caused a loss of revenue.

Issues that will not be resolved by the system integration project:

- Container identification numbers were incorrectly provided to Revenue & Finance's Property Control.
- Container locations were not always accurate.
- Unassigned containers were not issued based on any criteria.
- The Commercial Operations' procedures manual was out-of-date. It had not been updated since 1993.

The Solid Waste Department's plans to integrate the functions of the container inventory database and SRS application (container inventory and service routing) into MSS should help eliminate many of the errors found during the audit and address a number of the issues cited in the audit conclusions. However, before the applications can be merged, a significant amount of data clean up must occur.

AUDITEE COMMENT

The Department of Solid Waste is pleased that our Internal Audit Department conducted an audit for this ongoing concern. Solid Waste is greatly appreciative of the new direction our T & I Department's Director has taken to bring this organization up to speed with 21st century philosophy and technology.

RECOMMENDATION 1

The Solid Waste Department should devote the resources necessary to clean up the data contained in the container inventory, SRS, and MSS. This should be given a top priority not only because of the potential revenue being lost, but because not doing so will delay the successful completion of the system integration project.

AUDITEE RESPONSE

The Solid Waste Department concurs with this recommendation. This Department, at the recommendations of T & I, acquired an integrated operating system in 2002, which would have eliminated the issues resulting from using three independent and stand-alone systems, which is also the root cause for the discrepancies mentioned in the audit. The Solid Waste Department appreciates the cooperation and support T & I is providing by developing necessary program modifications to the MSS system and making it an integrated system. This new system is expected to have the capabilities of routing, inventory management and customer services all in one place and will also eliminate the necessity to build a number of interfaces between MSS and any other outside programs. With the anticipation of this new integrated system, we have already started the data cleanup efforts. Customer Service personnel are scheduled to work a few Saturdays until all data in SRS and MSS coincide before the conversion starts.

RECOMMENDATION 2

After the completion of the system integration project, Solid Waste management should address the issues identified above that would not have been corrected by the system integration project.

- A. Controls should be implemented to ensure container identification numbers are correctly provided to property control.
- B. Controls should be implemented to ensure the container locations are accurate and updated as necessary.
- C. A policy should be developed to ensure containers are rotated to ensure consistent usage.
- D. The Commercial Operations' procedures manual should be updated.

AUDITEE RESPONSE

An inventory system is part of the integrated program currently under design by the T & I Department. This system is expected to have safeguards and controls to eliminate duplications and omissions, not only when assigning numbers, but also when delivering bins, roll-off containers, and compactors to customers. This system is expected to accurately record the location of the containers and update automatically as account's status changes, through the work order system.

An update of the commercial operations procedure manual is currently underway and is expected to be completed by June 30, 2007.

CUSTOMER SATISFACTION SURVEY

The purpose of Objective 3 was to determine the level of customer satisfaction with commercial solid waste services. A customer satisfaction survey was developed with the assistance of Solid Waste management. The survey focused on garbage pickup and customer service. One hundred commercial customers were randomly selected and mailed the survey. Customers were asked to rate their level of agreement with the survey statement using a scale of 1 to 5, with five indicating complete agreement. Thirty-six customers responded.

Commercial & Multi-Family Garbage Collection

- | | |
|--|-----|
| 1. I am completely satisfied with my overall garbage service. | 3.8 |
| 2. The quality of my garbage service has been consistent. | 3.7 |
| 3. I am completely satisfied with the timeliness of the garbage collection. | 3.8 |
| 4. My container(s) are properly returned to their assigned location after each pickup. | 4.2 |
| 5. I never have to clean up any garbage that spills during the pickup. | 3.3 |

Customer Service

- | | |
|---|----------|
| 6. In the last 6 months, I called the City about a problem or concern with my garbage collection service. | Yes - 22 |
| 7. I did not have to wait long before I spoke to a customer service representative. | 3.9 |
| 8. The customer service representative was courteous, helpful, and informative. | 4.1 |
| 9. If a service call was required, field personnel responded within the timeframe given. | 3.4 |
| 10. The issue was resolved after my first call. | 3.4 |
| 11. The issue was resolved to my complete satisfaction. | 3.7 |

The results of the survey indicate that customers were generally satisfied with the service received. Based on the survey results and customer comments, commercial operations should work on reducing the number of missed pickups (4 comments), improve its handling of any spilled garbage (4 comments), and ensure customers complaints are addressed timely and completely after the initial call (3 comments). No recommendations related to these issues will be presented. As a best practice, Solid Waste should continue to survey its commercial customers using this or a future survey as a benchmark.

AUDITEE COMMENT

Thank you for performing this survey. The Solid Waste Department will conduct a customer satisfaction survey periodically in the future.