

**Internal Audit Report 2014-08**  
**St. Louis County – Health Department**  
**Landfill Tipping Fees**  
**April 24, 2015**  
**Final Audit Report**

<b>Distribution:</b>	<b>Audit Performed by:</b>
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The Honorable Steven V. Stenger	
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Genevieve M. Frank, Administrative Director – County Council	Start Date: December 10 2014
Joan Gilmer, Circuit Clerk	
Renee Hines-Tyce, Administrator – Department of Municipal Court	
	Completion Date: February 20, 2015
Peter Krane, County Counselor	Closing Date: March 19, 2015
Andrea Jackson, Director – Human Services	
Stephanie Leon Streeter, P.E. Acting Director – Department of Highways and Public Works	
Bob McCulloch, Prosecuting Attorney	
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	<b>Audit Report Number 2014-08</b>

**TO:** The Honorable Pat Dolan – County Council  
The Honorable Steven V. Stenger, County Executive  
Faisal Khan, MBBS, MPH, Director – Department of Health  
John Haasis, Program Manager – Department of Health

**FROM:** David Makarewicz, CISA, St. Louis County Auditor

**SUBJECT:** Final Audit Report  
St. Louis County – Health Department  
Landfill Tipping Fees - Audit 2014-08

**DATE:** April 24, 2015

**EXECUTIVE SUMMARY**

At the request of the Director of the Health Department, the Auditor's Office conducted an audit of Solid Waste Surcharge reports filed by the two landfill operators who operate active landfills in St. Louis County. The request for the audit originated with the Director of the Health Department, and was passed through the County Executive to the County Council.

The surcharge collected by St. Louis County is an important source of funding for waste reduction programs. Surcharges received are allocated annually in the budget approved by the St. Louis County Council for management, promotional, grant and education programs for solid waste, household hazardous waste, resource recovery, recycling and related matters supporting waste diversion.

Our objectives were to review and verify the mathematical accuracy and validity of Solid Waste Surcharge reports filed by landfill operators and to test the calculation of the new rates to be used for the next four quarters of filings:

**Accuracy of Filings and Surcharges Paid**

St. Louis County assesses a fee on each ton of certain types of waste deposited in a landfill in St. Louis County. Section 607.610 of the St. Louis County Code of Ordinances allows a landfill operator to bill and collect these surcharges from their landfill customers. Surcharges are broken out in gate fees (tipping fees) paid by landfill customers. A similar surcharge is collected by the State of Missouri.

We tested computations of surcharges owed and paid by two landfill operators to St. Louis County for four quarters. We tested the filings, recomputed surcharge amounts and verified that the landfill operators had remitted the correct amounts of surcharges collected to St. Louis County.

**Supporting Documentation**

We reviewed supporting documentation and the processes used by landfill operators to collect data necessary to file these reports and pay the proper surcharge amounts. Our audit testing included a review of the underlying records and reports used by the landfill operators when preparing their filings and remitting these fees to St. Louis County.

**Setting of New Rates**

New surcharge rates are set annually. Prior gate fees (tipping fees) collected from customers of the all of the active landfill operators are averaged over four quarters and use to set future surcharge rates. The quarters used for the calculation are offset from the calendar year by one quarter. Rates set for 2015 were based on filings from the fourth quarter of 2013 and first, second and third quarters of 2014.

The new surcharge amount is based on a weighted average of the revenues collected by the landfill operators for different types of waste. A weighted average is computed for different types of waste, such as

solid municipal waste or demolition materials. A weighted average is used to set the surcharge rates so that the surcharge can be applied based on tonnage deposited, rather than differing amounts of revenue collected by the individual operators. We tested the calculation of these weighted averages of gate fees for the different types of waste.

These calculations are checked and independently verified because a very small error or change in the rates can be magnified when it is applied and collected on every ton of certain types of waste deposited in the landfills. The calculations usually include the conversion of measures from cubic yards to tons, grouping of waste by category, and proper rounding of amounts. The calculation also requires that the landfill operator remit amounts that are the higher of collected amounts vs. computed amounts. Filings may include late fees and penalties for late filings that need to be checked.

Revenues collected in four quarters by these two landfill operators for waste that is subject to this surcharge totaled \$20,834,029.77.

The total of solid waste surcharges remitted to St. Louis County, not including interest and penalties, totaled \$1,017,504.88 for the four quarters we audited. This is 4.88 percent of the total revenue. The differences between this percentage and the surcharge rate are due to rounding and a small amount of additional revenue that was reported in error. The differences are acceptable. Surcharges amounts computed by the landfill operators or billed by the landfill operators to their customers (if higher) were remitted in total to St. Louis County.

**Surcharge Amounts Collected**

Landfill	2013 4 <sup>th</sup> Quarter	2014 1 <sup>st</sup> Quarter	2014 2 <sup>nd</sup> Quarter	2014 3 <sup>rd</sup> Quarter	Total of Four Quarters
IESI MO Champ Landfill	229,240.32	196,851.57	255,105.36	247,300.67	928,497.92
Rock Hill Quarries Landfill	21,657.86	15,719.42	26,431.81	25,197.87	89,006.96
	=====	=====	=====	=====	=====
	\$ 250,898.18	212,570.99	281,537.17	272,498.54	\$ 1,017,504.88

**Opinion**

In our opinion the filings were found to be timely and correct. The calculation of new rates contained a small error that was corrected. The error was not material and has been corrected.

The error would not have been found unless supporting documentation used by the landfill operators to prepare their filings was reviewed.

**Key Finding:**

- One of the filings contained a small error of over-reported revenue of \$2,368 in the category called Special Waste. A landfill operator included additional revenue on their filing that should not have been included. The difference in amount of the corrected surcharge on that filing was not material.

The new average gate rate for one category of waste (Special/Asbestos) was lowered by in the second quarter of 2015 to correct for this error. The annual impact of this correction **is not material** as it impacted the category with the lowest tonnage and lowest gate fees. It may lower the surcharges collected in 2015 by an amount estimated to be less than \$150.

There are no audit recommendations contained within this report.

**Conclusions:**

**Average Gate Fees – Two Landfills (2014 – Fourth Quarter through 2015 – Third Quarter)**

	<b>Tonnage</b>	<b>Fees Charged and Collected by Landfill Operators</b>	<b>Average Gate Fee Collected Per Ton</b>
Municipal Solid Waste	582,052.19	\$ 9,692,694.94	\$ 16.65
Demolition/Heavy/Construction	364,713.90	\$ 9,435,131.54	\$ 25.87
Special/Asbestos	118,673.41	\$ 1,703,891.29	\$ 14.36

**New Surcharge Rates**

New surcharge rates were calculated based on the Quarterly Solid Waste Surcharge Reports filed by the landfill operators. The averages are based on reports filed in the 4<sup>th</sup> quarter of 2013, and the first, second and third quarters of 2014. For the subsequent four quarters, landfill operators will be required to remit a surcharge that is five percent of the amounts listed above, for each ton of waste of different types deposited. The surcharge is computed as a five percent fee of a standard amount that is an average gate rate for each type of waste. The averages are as follows:

**Averages Landfill Gate Fees per Ton**

Municipal Solid Waste	\$ 16.65
Demolition/Heavy/Construction	\$ 25.87
Special/Asbestos	\$ 14.36

The audit was conducted according to governmental auditing standards and the internal audit standards issued by the Institute of Internal Auditors (IIA).

Our findings and recommendation were provided to and discussed with:

- Faisal Khan, MBBS, MPH, Director – Department of Health,
- John Haasis, Program Manager – Department of Health,
- Mike Zlatic, Engineer/Consultant – Department of Health,
- Mark Barry, Fiscal Director – Department of Health.

This audit required assistance and cooperation from Health Department staff and management who image filings, retain copies of reports, assemble data and provide reports:

- John Haasis, Program Manager – Department of Health,
- Cornelia Beard, Office Services Representative.

Assistance was also provided by Shannon Hawkins – Area Controller of IESI Corporation and Bruce Dresser – General Manager of Rock Hill Quarries.

We thank them for their assistance during the audit.

## TABLE OF CONTENTS

I.	Background and Introduction	1
II.	Scope of Audit	2
III.	Audit Objectives – Prior to the Start of the Audit	4
IV.	Audit Objectives - Assessment of Controls – Post Audit	5

## **I. Background and Introduction**

### **Solid Waste Management Program**

The Solid Waste Management Program provides education, technical assistance, enforcement activity and grant funding for municipalities and other organizations for the purpose of implementing waste reduction programs.

Staff and management within the Solid Waste Management Program in the St. Louis County Health Department enforce the Waste Management Code. The Waste Management Code regulates the handling, storage, transportation and disposal of all solid waste, special waste, demolition waste, medical waste, and the registration of recycling facilities.

Enforcement is achieved through the issuance of licenses, registrations, permits, citations and notices of violations to solid waste management facilities, waste collection and transport services, and recycling operations. Inspections/investigations are performed on licensed facilities, hauler trucks and containers, demolition activities and special waste applications. Complaints and violations of the Waste Management Code are investigated.

### **License Fees**

Landfill operators are required to pay license fees in accordance with Section 607.610 of the St. Louis County Revised Ordinances.

### **Solid Waste Surcharge**

Landfill operators are also required to remit to St. Louis County a surcharge on solid waste that is deposited in any licensed landfill located within St. Louis County.

The surcharge is a source of funding for programs intended to reduce waste and encourage recycling.

An example may help clarify the computation of average gate fee and surcharge calculation:

- Surcharge rates are based on average revenues collected by landfill operators per ton of waste, in a prior time period.
- The surcharge is assessed based on tonnage. If stated in cubic yards, measures must be converted to tonnage.
- If two landfill operators each deposited a single ton of municipal waste into their landfill in each of four quarters, and the revenues collected per ton were \$16.00 per ton for the first landfill operator and \$17.00 per ton for the second, then the average revenue collected would be \$16.50 per ton. The tipping fee for municipal waste for the next year's filings would be set at five percent of this average amount (.05 times \$16.50.)
- Even though the revenues collected might be different, the surcharge amounts are based on tonnage.

### **Active Landfill Operators**

There are two active landfill operators currently accepting waste into landfills within St. Louis County.

- The Rock Hill Quarries Company operates the Rock Hill Quarry Landfill.
- IESI Corporation operates the IESI Missouri Champ Landfill.

### **Revenues Collected**

Revenues collected in four quarters by these two landfill operators for waste that is subject to this surcharge totaled \$20,834,029.77. The quarters were from October 1, 2013 to August 30, 2014.

### **Surcharges Collected**

The total of surcharges paid for these four quarters to St. Louis County was \$1,017,504.88. This is 4.88 percent of the total revenue. The differences between this percentage and the surcharge rate are due to rounding and a small amount of additional revenue that was reported in error. The differences are acceptable.

## **II. Scope of Audit**

The scope of the audit was quarterly Solid Waste Surcharge reports that were filed by the two landfill operators.

The amounts stated on the Quarterly Solid Waste Surcharge Report Forms should be accurate for revenues collected by the landfill operators, tonnage of waste deposited in the landfills, fees collected and fees remitted.

Separate calculations are performed for each type of waste. A separate calculation was performed for each of these three major categories of waste:

- Municipal Solid Waste
- Demolition/Construction/Heavy
- Special/Asbestos

The total of solid waste surcharges remitted to St. Louis County, not including interest and penalties, totaled \$1,017,504.88 for the four quarters we audited.

We tested all filings for completeness, reasonableness and mathematical accuracy. For each landfill operator, we reviewed and tied a quarterly filing to underlying support from the landfill operator's reports and accounting systems.

Interest and penalties assessed for late remittances were recomputed and tested. There were no late remittance during the period reviewed.

We recomputed the average gate rate for each of three categories of waste. This average gate rate is the average amount of revenue collected per ton across all landfill operators, for the prior four quarters.

**Section 607.610**

The relevant portion of Section 607.610 states:

“2. *In addition to the basic annual licensing fee imposed in subsection 1 of this section, there is also imposed a surcharge on waste deposited at sanitary landfills and demolition landfills as follows:*

- a. *The surcharge shall be computed as a percentage of the "gate fee" for the disposal of waste at sanitary landfills and demolition landfills. The "gate fee" is defined as the weighted average fee charged per ton of waste by operators of landfills for each type of waste landfilled in St. Louis County and shall be calculated net of this surcharge and the fee imposed by Section 260.330, R.S.Mo. Fees charged per cubic yard shall be converted to tons using the formulas specified in rules promulgated by the Department.*

*The average fees charged by operators in St. Louis County shall be calculated each year by the Director based on the Director's examination and audit of landfill surcharge reports which shall contain such information as determined by the Director, and other data available to the Director. Separate averages shall be prepared for each waste category including, but not limited to the following: construction/demolition/heavy, municipal solid waste (MSW) and special waste (including asbestos. etc.). For the purposes of calculating the average fee the Director may disregard charges by an operator to a generator or hauler which the operator controls, directly or indirectly, if the Director finds such charges do not reflect market rate transactions. All waste disposed of in landfills in St. Louis County shall be subject to this surcharge pursuant to the provisions of this ordinance and all rules and regulations issued thereunder. The Director shall make the average fees so calculated and the resulting surcharge public at least thirty (30) days prior to the effective date of the new rates.*

*The surcharge shall be paid quarterly, and must be delivered or postmarked by the last day of the month following each calendar quarter. Any payment of surcharges which is not made at the time herein specified or under rules promulgated hereunder, shall be subjected to a penalty of one (1) percent per month or part thereof and interest at the rate of two (2) percent for each month or part thereof delinquent in addition to any other penalty provided by law.*

- b. *The surcharge percentage shall be five (5) percent of the "gate fee."*
- c. *The surcharge established in this section shall be enumerated separately from the disposal fee charged by the landfill. Nothing in this ordinance precludes such surcharge from being passed through to persons who generated the solid waste. Moneys transmitted to the County Treasurer shall be no less than the amount collected, and in a form, manner and frequency as the Director shall prescribe. Failure to collect the charge does not relieve the operator from responsibility for transmitting an amount equal to the charge to the County Treasurer.*
- d. *The Director may examine or audit financial records and landfill activity records and measure landfill usage to verify the collection and transmittal of the charges established in this section. The Director may promulgate rules and regulations pursuant to Section 607.900 of this Chapter to ensure and to verify that the charges imposed herein are properly collected and transmitted to the St. Louis County Treasurer. “*

### **III. Audit Objectives – Prior to the Start of the Audit**

At the beginning of the audit, established audit objectives and the scope of the review. These objectives are stated in the positive. These are objectives we expect to be met or controls we would expect to find in this area. Later, in this report, we provide results of the audit, against these objectives:

#### **Solid Waste Surcharge Reports**

Quarterly Solid Waste Surcharge filings and surcharge remittances should be filed timely by landfill operators.

#### **Accuracy of Quarterly Filings**

Quarterly Solid Waste Surcharge reports should be mathematically correct and complete.

#### **Average Gate Fee Calculations**

There should be an independent check of average gate fee calculations.

#### **Landfill Operations**

Checking should be performed to determine if the landfill was active or closed. If closed, they should not be accepting additional waste.

#### **Compliance Testing of Reporting**

Amounts reported by landfill operators should be tied to reporting and underlying accounting systems.

#### **Late Charges, Interest and Penalties**

Late fees, interest and penalties, if any should be computed properly and remitted to the County.

**IV. Audit Objectives - Assessment of Controls – Post Audit**

At the conclusion of the audit, we assessed the effectiveness of controls based on the results of the audit:

**Solid Waste Surcharge Reports**

Quarterly Solid Waste Surcharge filings and surcharge remittances were filed timely by landfill operators.

**Accuracy of Quarterly Filings**

Quarterly Solid Waste Surcharge reports were mathematically correct and complete.

**Average Gate Fee Calculations**

There was an independent check of average gate fee calculations.

**Landfill Operations**

Checking was performed to determine if each landfill was active or closed. Two landfills are active and accepting waste. Supporting landfill operator reports were checked to determine the types of waste accepted.

**Compliance Testing of Reporting**

Amounts reported by landfill operators were tied to reporting and underlying accounting systems.

**Late Charges, Interest and Penalties**

There were no late fees, interest and penalties.