

APPENDIX 1

TORONTO PARKING AUTHORITY PAY AND DISPLAY PARKING OPERATIONS - REVIEW OF REVENUE, EXPENDITURE AND PROCUREMENT PRACTICES

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Auditor General's Office

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EXECUTIVE SUMMARY

The Toronto Parking Authority (TPA) is responsible for the management of on-street parking meter operations and off-street municipal parking facilities, covering over 55,000 parking spaces across the city.

TPA remits to the City of Toronto the greater of 75 per cent of its net revenue or \$18 million

TPA operates as a local board of the City of Toronto and remits to the City 75 per cent of its net revenue or \$18 million, whichever is greater, under a revenue-sharing arrangement. TPA retains the balance to finance capital projects. TPA also pays City taxes on municipal parking facilities.

For 2007 and 2008, TPA remitted approximately \$35 million and \$53 million respectively to the City. In addition, TPA paid approximately a further \$15 million annually in municipal taxes for the operation of municipal parking facilities. For 2008, TPA also transferred to the City \$20 million from retained earnings in excess of capital requirements.

The review focused on pay and display operations

Our review focused mainly on parking operations related to on-street and off-street pay and display equipment which generated approximately \$65 million or 57 per cent of total parking revenue in 2008.

Audit results

Our review identified a number of areas where internal control issues relating to the management of pay and display parking operations should be addressed.

This report addresses various issues related to the following:

- Management's broad discretionary power over procurement practices.
- Inadequate contract management practices resulting in certain contracts not being prepared or with inadequate or insufficient terms and provisions, and performance not being monitored and errors not being detected.
- Limitations in the ability of pay and display equipment to prevent invalid credit card payments.
- Need to strengthen administrative and information system controls.

***Audit
recommendations***

Our audit provides 16 recommendations pertaining to the following areas:

- Strengthening procurement policies and procedures
- Strengthening contract development and management
- Improving credit card payment processing
- Strengthening administrative and information system controls

***Benefits of
implementing
recommendations***

Implementing the recommendations contained in this report will strengthen controls, improve accountability and may result in cost savings in the range of \$400,000.

BACKGROUND

***TPA is a self-
sustaining public
corporation
owned by the
City of Toronto***

The Toronto Parking Authority (TPA) is a self-sustaining public corporation owned by the City of Toronto. TPA operates over 18,000 on-street parking spaces across the City and 37,100 off-street parking spaces in 180 facilities, including 22 parking garages. Of the total off-street parking spaces, 21,700 are managed exclusively by the TPA, 13,700 are managed by TPA on behalf of the Toronto Transit Commission, and another 1,700 for the Toronto Parks, Forestry and Recreation Division on a seasonal basis.

Revenue-sharing arrangement with the City

Under a revenue-sharing arrangement with the City, TPA remits to the City 75 per cent of its net income or \$18 million, whichever is higher, and retains the balance to finance capital projects. TPA's capital plan is approved by the Board and City Council.

TPA's 2008 operating revenue and expenditures

In 2008, TPA generated \$76 million in net income, including a \$20 million gain on the sale of property. The City's share was about \$53 million. In addition, TPA paid another \$15 million in annual municipal taxes for municipal parking facilities. For 2008, TPA also transferred to the City \$20 million in excess of its ongoing capital requirements.

A summary of 2008 revenue, expenditures and equity along with 2007 comparative amounts, is provided in Table 1 below.

Table 1: Revenue and Expenditures for the Year Ended December 31				
	2008			2007
	On-Street	Off-Street	Total	Total
(\$ in thousands)				
Revenue	\$45,121	\$67,959	\$113,080	\$102,572
Direct expenses	12,591	43,215	55,806	53,473
Direct operating income	32,530	24,744	57,274	49,099
Administration expense			6,785	6,450
Net operating income			50,489	42,649
Gain on sale of property			20,537	-
Other income			4,978	3,667
Net income before revenue-sharing			\$76,004	\$46,316
City of Toronto share			(53,176)	(34,710)
TPA net income			22,828	11,606
Equity, beginning of year			161,094	149,488
Transfer to City of Toronto			(20,000)	-
Equity, end of year			\$163,922	\$161,094

Source: Unaudited Financial Statements

Pay and Display Parking Operations

TPA uses over 2,800 solar-powered pay and display machines

This review focused on pay and display parking operations. Currently, TPA uses over 2,800 solar-powered pay and display machines for both on-street and off-street surface lots. Table 2 provides a breakdown of parking collection methods:

Table 2: Parking Collection Methods			
	On-Street	Off-Street	Total
Pay and Display Machines	2,586	241	2,827
Single-space Meters	1,223	-	1,223
Pay on Foot Stations		36	36
Credit Card Entry/Exit Stations		66	66
Total	3,809	343	4,152

Source: Toronto Parking Authority, as at September 29, 2008
(excluding TTC and the Toronto Parks, Forestry and Recreation)

Solar-powered pay and display machines generated approximately \$65 million in parking revenue

The pay and display machines accept cash and credit card payments. In 2008, TPA generated approximately \$65 million in parking revenue collected from pay and display machines, both on-street and off-street surface lots. This amount represents 57 per cent of total parking revenue. An analysis of pay and display parking revenue by payment type and other parking revenues provided in Table 3 below:

Table 3: Analysis of 2008 Parking Revenue					
	Pay & Display Parking			Other Parking	Total Parking Revenue
	Cash	Credit Card	Total Pay & Display		
(\$ in thousands)					
On-street	27,300	16,734	44,034	1,087	45,121
Off-street	10,759	9,808	20,567	47,392	67,959
Total parking revenue	38,059	26,542	64,601	48,479	113,080
% of total parking			57%	43%	100%

***On-street
parking revenue***

On-Street Parking

The graph below shows an analysis of total on-street parking revenue from 2003 to 2008. On-street parking revenue rose from \$32 million in 2003 to \$45 million in 2008. The increase can be attributed to increased number of pay and display machines from approximately 1,800 to 2,600 over the same period. In addition, an increase of 50 cents in on-street hourly parking rates was implemented in late 2007. Current on-street parking rates range from \$1 to \$3.50 an hour.



***History of the
pay and display
replacement
program***

Pay and Display Equipment

Upon amalgamation in 1998, TPA introduced the Parkeon DG4 pay and display machines supplied by Precise PriceLink Inc. to replace on-street single-space meters previously used throughout the city and the former municipalities. This equipment has since become the standard equipment for the TPA. The DG4 equipment had been used by the former Cities of Toronto and North York, prior to amalgamation. The former Cities of Etobicoke and York used equipment supplied by a company called Cale Systems Inc.

***Sole Source
Purchase of Pay
and Display
Equipment***

From 1998 to 2007, a number of DG4 pay and display machines were purchased annually as part of the meter replacement program. All purchases were made from the current vendor, Precise ParkLink Inc., sole distributor of this equipment in Canada. In addition, supporting parts and maintenance, including the printer, credit card reader and ticket paper, are supplied by the vendor. While TPA owns the pay and display equipment, the operating system controlling the equipment is a proprietary system owned by the vendor.

No viable alternative equipment at the time

Management indicated there were no other viable procurement alternatives at the time. TPA had already been using the equipment and was satisfied with its performance. TPA considered different equipment supplied by a company called MSC Electronics in 1997. However, significant delays were encountered due to software problems, which the vendor could not rectify. As a result, the order was cancelled.

Equipment used by other municipalities

Our review of parking equipment used by other municipal jurisdictions both in Canada and the United States indicated that many municipalities use Parkeon equipment supplied by Precise ParkLink Inc. However, the machine model and operational services such as the communications network vary by municipality. Consequently, price and performance comparisons with TPA equipment were not possible. Some municipalities use equipment supplied by Cale Systems Inc. and Digital Payment Technologies.

AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

Auditor General's 2008 Audit Work Plan

The Auditor General's 2008 Work Plan included a review of the Toronto Parking Authority's revenue, expenditure and procurement practices. This review was selected generally based on significant revenue generated and the associated risks.

Audit objective

The objective of this review was to assess the adequacy and effectiveness of controls and processes in place over revenue, expenditures and procurement practices.

Audit scope

The scope of the review was on pay and display operations, both on-street and off-street. In particular, we reviewed the following areas:

- Procurement practices
- Contract monitoring controls
- Deployment of pay and display machines
- Expenditure controls
- Cash and credit card collection, deposit and recording
- Information systems data collection, transmission and reporting

The review covered the period January 1, 2008 to December 31, 2008. The review did not include parking operations managed by the TPA on behalf of the TTC and the Toronto Parks, Forestry and Recreation Division.

***Audit
methodology***

Our audit methodology included the following:

- Review of policies and procedures
- Interviews with TPA staff and contractors
- Physical observation of pay and display parking revenue collection
- Examination of documents and records
- Review of related meeting minutes
- Review of related audit reports
- Analysis of revenue, expenses and procurement data
- Review of parking operations of other municipalities such as:
 - Vancouver, BC
 - Winnipeg, AB
 - Calgary, AB
 - Mississauga, ON
 - Aspen, CO
 - Portland, OR
- Other procedures deemed appropriate

***Compliance with
generally
accepted
government
auditing
standards***

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 that provides 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

1. PROCUREMENT CONTROLS NEED STRENGTHENING

TPA has established procurement policies and procedures

The Toronto Parking Authority (TPA) has established policies and procedures with respect to procurement and expenditure controls through Board-approved policy resolutions. TPA Policy Resolution 5-7 Section G states that “The tendering process and the requesting of quotations is used to ensure the selection of vendors on a fair and economically competitive basis. Before a purchase order can be issued, or a contract finalized, it will be necessary to request tenders or quotations for certain types of expenditures.”

However, current TPA policies also provide management broad discretionary power to make exceptions to the procurement process. This increases the risk that purchasing terms and conditions may not be the most competitive in the market.

1.1 Need for Objective Criteria for Exceptions to Tendering Process

Broad exceptions to competitive procurement process erode management accountability and transparency

As is common in government procurement policies, exceptions are allowed whereby a competitive bidding process can be waived. Certain exceptions provided in TPA policies are broad, giving management wide discretion on whether or not to issue tenders or price quotations. Policies currently in effect allow management to choose not to obtain competitive pricing if deemed in the “best interest of the TPA”. No definition or criteria is provided as to what is considered “in the best interest of the TPA”.

TPA Policy provisions for disbursements, tenders and quotations

TPA Policy Resolution 5-7 related to Approval of Disbursements, Calling of Tenders and Quotations provide for the following:

- Tenders are required for capital projects, maintenance projects controlled by an outside consultant, and redesign or rebuilding of a carpark.
- Other purchases may be tendered if it will yield a benefit.
- All consulting, architectural, legal, and real estate fees are at the President's discretion.
- Exceptions to Tendering or Quotations:
 - in the best interest of the TPA
 - available from only one source
 - compatibility with existing product or service is an overriding consideration
 - extension or reinstatement of contract is most beneficial
 - In an emergency: (1) health/safety concern; (2) prevent further delays or damages; or (3) restore a minimum standard of service.

City of Toronto procurement policies are more restrictive

City of Toronto procurement policies and procedures are generally more restrictive, although in certain cases they do allow management discretion.

The City's Procurement Processes Policy, and Sole Source or Non-Competitive Procurement Policy and Procedures both state that a non-competitive procurement process shall only be used if one or more of the following conditions apply and a process of negotiation is undertaken to obtain the best value under the circumstances for the City:

- available from one source or one supplier
- attempt to use a competitive method failed to identify a successful supplier
- emergency
- special knowledge, skills, expertise or experience which cannot be provided by any other supplier
- not in the public interest as in security or confidential matters.

Examples of agreements not tendered

In 2008, TPA entered into three-year agreements for banking services and coin processing, without going to tender. Management's rationale was that this was in the best interest of TPA as it would likely not get a better arrangement than that currently proposed. The assumptions were made based on the results of a previous tendering process.

Need for flexibility must be balanced with responsibility for a fair and open process

We recognize management's need for flexibility to determine what is in the best interest of the TPA. However, this need must be balanced with the responsibility to ensure accountability and transparency through an open and fair process.

1.2 Non-Compliance with Procurement Policies and Guidelines

Banking arrangement not tendered, contrary to policy

TPA Policy Resolution 5-7 stipulates that insurance and banking services are to be tendered every three years. In 2008, TPA opted to renew its banking arrangement for another three-year term without going to tender, which is not in compliance with TPA policy. Although the contract renewal was approved by the Board, there was no express approval for the waiver of policy.

Certain contracts did not contain sufficient terms to comply with policy

In addition, certain contracts did not contain sufficient terms and conditions to comply with provisions of Policy Resolution 5-7 requiring:

- Purchase of a defined service or supply from a specific vendor for a period not to exceed two years.
- TPA not be bound by the commitment if a lower price is obtained, providing the TPA allows the vendor to meet the alternative price.
- TPA not be bound by the commitment if not considered satisfactory, providing that the TPA allows the vendor to rectify the unsatisfactory service/supply condition.

While management explained that the above provisions applied only to purchase orders and not on formal contracts, the policy does not specify such exception.

Recommendations:

- 1. The Chair of the Toronto Parking Authority Board of Directors review provisions of Policy Resolution 5-7 and amend to**
 - a. provide objective criteria for exceptions to the competitive pricing process, giving consideration to adopting similar criteria included in City procurement policies**
 - b. clarify the type of long-term commitments on which the related section applies.**
- 2. The President of the Toronto Parking Authority take appropriate steps to ensure compliance with the provisions of Policy Resolution 5-7 and obtain specific Board approval for any waiver of policy.**

2. CONTRACTS AND CONTRACT MONITORING CONTROLS NEED STRENGTHENING

Need for properly executed contracts

In order to protect the interest of TPA, it is important that properly executed agreements are in place to ensure agreed upon terms and conditions are clearly stipulated, including adequate remedies for non-performance. The lack of properly executed contracts exposes the TPA to risk of loss in case of dispute or vendor default.

No contracts exist for significant service arrangements such as data and communication services and on-line credit card authorization. In addition, contracts pertaining to extended warranty, credit card upgrade and coin counting do not provide adequate terms and conditions, as outlined below.

2.1 Contracts for Significant Service Arrangements Need to be Established

Data and Communication Services

No formal contract for providing data and management services

TPA has a long-term arrangement with a vendor for the provision of data and communication services critical to the operation of pay and display equipment. There is no formal agreement with respect to the provision of such services. A draft agreement dated January 2009 has not been finalized.

Without a formal agreement stipulating the roles and responsibilities of both parties, service levels provided, and the financial terms of the agreement, the TPA is at risk of loss should the vendor fail to provide services essential to pay and display operations.

***Draft agreement
needs further
review***

Certain provisions in the draft agreement require further review. For example, the draft agreement does not provide that vendor program source code be held in escrow and available to TPA in the event of vendor insolvency. Such provision would ensure continuous operation of TPA's pay and display operations.

***No provision for
potential
financial benefit
for development
of new
technologies***

The draft agreement allows TPA to work with the vendor in developing new technologies. It further provides that TPA will retain ownership of the intellectual property and the vendor is allowed to offer it to other clients, with the approval of TPA. However, there is no provision allowing TPA to obtain potential benefit when the vendor markets the product to other clients.

While the draft agreement provides service levels and fines for non-performance, it does not provide defined criteria and a measure for non-performance on which to apply the fines.

We recognize that the agreement is in draft form and currently undergoing review by management.

On-line Credit Card Processing

***New on-line
credit
authorization
system being
developed***

In August 2008, TPA and the vendor signed a Letter of Intent for testing on-line credit card processing. The testing included 150 on-street and 294 off-street pay and display machines. While a detailed work plan was prepared outlining the terms of the testing, the plan has not been authorized or signed by both parties and there is no reference to the plan in the Letter of Intent. In addition, although the work plan describes the process after the testing phase, leading toward converting all TPA machines, the associated costs are specifically omitted from the plan.

***TPA has option
not to proceed
with
implementation***

The Letter of Intent stipulated that testing will be conducted at no cost to the TPA. If TPA decides at the end of the testing period not to proceed with on-line credit card processing, the vendor will remove all upgrades and restore the system to its previous state at no cost to TPA.

***No evidence of
Board approval
for major
undertaking***

We also noted that the Letter of Intent and work plan on the testing of on-line credit card processing were not approved by the Board. According to management, the work plan outlining the nature of the arrangement has been distributed to Board members and discussed by the Finance Committee. There is no evidence of Finance Committee approval as meeting minutes are not prepared. It is not clear whether the Finance Committee has authority to approve such arrangement.

***Testing is part of
an overall
implementation
plan***

The current testing of on-line credit card processing is part of an overall plan to eventually replace the current credit card batch processing system. As such, the plan should consider all viable options with an evaluation of the potential costs of implementation. We understand pay by phone parking, currently used by the City of Vancouver, is an additional payment option that could be considered by TPA. Given the significant financial implications resulting from any potential system that will be implemented, this project should be approved by the Board.

Recommendations:

- 3. The President of the Toronto Parking Authority, in consultation with legal counsel, take appropriate steps to execute a formal data and management services agreement, ensuring adequate terms and conditions are provided, including**
 - a. access to vendor program source codes essential to the operation of pay and display equipment, in the event of vendor insolvency**
 - b. defined service levels and standards, including criteria and measures for non-performance subject to penalty**
 - c. TPA ability to obtain potential financial benefits should the vendor market the product to other clients.**

4. **The President of the Toronto Parking Authority report to the Toronto Parking Authority Board by September 2009 on the overall plan to implement on-line credit card processing. Such report to include**
 - a. **detailed work plan for testing on-line credit card processing, including timelines, responsibility and status of work completed to date**
 - b. **other options being considered, including pay by phone as additional payment option**
 - c. **estimated costs of implementing on-line credit card processing under various options.**

2.2 Contracts Need to Provide Adequate Terms and Conditions

Extended Warranty

TPA entered into 10-year warranty agreement

TPA entered into a ten-year extended warranty agreement with the vendor for the repair and replacement of pay and display equipment, including the purchase of tickets and parts. The original agreement was signed in 2002, amended in 2005 and again in 2006 with a new expiry of 2016.

Parts replacement cost not stipulated in agreement

Management reported to the Board that warranty costs were comprised of two parts: a cost per machine per month and a portion of the cost per ticket roll for parts replacement. The signed agreement stipulated the cost per machine per month and the cost per ticket roll. However, the contract contains no stipulation that the cost of the ticket roll include a portion for parts replacement.

Management also indicated that the parts replacement cost on the ticket roll was a measurement of machine usage. However, given that not all tickets in a roll are used, we estimated the cost of parts replacement plan attributed to unused tickets was approximately \$126,000 for 2008. Opportunity exists to reduce this cost by reducing the number of unused tickets or negotiating to modify the basis of the parts replacement plan.

Credit Card Reader Upgrade

In 2007, the Board approved a credit card reader upgrade for 2,600 pay and display machines for a total cost of \$10 million. Management reported to the Board that the new credit card reader would have increased data capacity. In addition, changes required to update the pay and display equipment for anticipated rate increases and the advancement of Daylight Savings Time would be made at the time of the upgrade at no additional cost to TPA.

Insufficient detail on confirmation letter regarding credit card upgrade

However, the confirmation letter outlining the terms of the upgrade did not include such stipulations nor the following items that should also be included in the agreement:

- Actual number of machines requiring upgrade
- Specific cost per unit
- Installation period
- Defined payment terms
- TPA remedies in the event of vendor failure to deliver satisfactory service

Contracts should stipulate all significant terms and conditions

In order to minimize the risk of dispute and ensure the interests of TPA and the City are protected, all significant terms and conditions should be clearly stipulated in properly executed agreements. Consideration should also be given to consulting with the City Solicitor on significant contracts, as appropriate.

Recommendations:

- 5. The President of the Toronto Parking Authority, in consultation with appropriate legal counsel, ensure all contracts clearly stipulate all terms and conditions approved by the Board, while protecting the interests of TPA and the City.**
- 6. The President of the Toronto Parking Authority analyze options and take appropriate action to reduce the parts replacement cost attributed to unused tickets.**

2.3 Contract Monitoring Controls Need Strengthening

Pay and display related services

TPA has an agreement with the vendor, Precise PriceLink Inc., for the purchase of goods and services related to pay and display equipment. The vendor provides the following:

- Equipment installation, repair and removal
- Ticket supply
- Network communications

We noted areas where management controls need to be established or strengthened. These areas include ticket supply, warranty repairs and parts replacement, and non-warranty repairs and replacement pricing. A brief explanation of each follows:

Ticket supply

Shortage in ticket supply

When TPA ordered ticket paper in quantities of 1,750 tickets per roll, actual shipments contained only 1,700 tickets per roll. Although purchase orders indicated the number of tickets per roll, shipping documents only reflected the number of boxes delivered, without noting the actual number of tickets. We advised management of the discrepancy and according to management efforts are underway to recover \$84,500 in overpayments.

Warranty repairs and parts replacement

No tracking of work order status to ensure compliance with agreement

According to the warranty agreement, any equipment that cannot be repaired on site and taken to the vendor's premises must be replaced within 48 hours. Procedures are not in place to track the status of work orders to ensure that equipment is in fact replaced within the 48 hours specified in the agreement.

No trend analysis of repairs and maintenance issues

In addition, there is no analysis conducted on type and frequency of repairs, equipment malfunction or service interruptions. Such analysis would help identify recurring problems which could signify more serious problems and help ensure that these are addressed on a timely basis.

Although TPA receives real-time information whenever equipment requires attention such as printer failure, not accepting payment or low paper level, the information is not retained for analysis. The current format of the information provided was not designed to facilitate such analysis. We understand that plans are underway to modify the format of the information provided.

Recommendation:

- 7. The President of the Toronto Parking Authority take appropriate action to recover the overpayment on shortage of ticket supply and remind staff to check the quantity of all goods received.**
- 8. The President of the Toronto Parking Authority implement procedures to ensure equipment repairs and maintenance are completed on a timely basis and recurring problems are identified and satisfactorily addressed.**

2.4 Payment for Credit Card Reader Upgrade Needs Adjustment

Details of credit card upgrade

In January 2007, the TPA Board approved a management recommendation related to the credit card upgrade of 2,600 machines for a total of \$10,010,000 plus GST. Payments are to be made over five years without interest.

Actual number of machines upgraded lower than estimated but difference was not detected

In May 2007, a purchase order was issued for the full amount. In February 2008, an invoice was paid for \$2,010,000 plus GST, representing the first installment. However, we found that TPA required and received upgraded credit card readers for 2,545 machines, instead of the 2,600 originally approved. The difference represents a potential overpayment of \$211,750.

Future annual payments could be reduced by \$53,000

Although work orders were issued for each installation of new credit card readers, there was no reconciliation of the total number installed, upon completion of the upgrade. As a result, the discrepancy was not detected. Since the cost of the upgrade is paid in installments, future annual payments could be reduced by \$53,000.

Fixed assets and accrued liabilities reported on the 2007 financial statements were overstated by the same amount and the related depreciation expense by a lower prorated amount. We have advised management and the external auditor of this difference, which will be considered for adjustment in the financial statements.

Recommendation:

- 9. The President of the Toronto Parking Authority take appropriate steps to make necessary adjustments with respect to the credit card upgrade, including**
 - a. reducing future payments to reflect revised purchase cost**
 - b. adjusting the affected general ledger and financial statement accounts, as appropriate.**

3. CREDIT CARD PAYMENT PROCESSING NEEDS IMPROVEMENT

3.1 Implementing On-line Credit Card Authorization a Priority

Pay and display machines do not have on-line credit authorization

The pay and display machines currently used by TPA do not have on-line real-time credit card authorization. Instead, TPA uses a batch processing system whereby credit card payments are accepted and subsequently processed for payment. As a result, the possibility for accepting payment using invalid credit card exists.

Credit card declines valued at \$2.7 million in 2008

In fact, the value of credit card transactions not collected or declined for various reasons has almost doubled from \$1.5 million in 2007 to \$2.7 million in 2008. This represents six and eight per cent of the total value of credit card transactions respectively.

Projected improvement in decline rate as a result of credit card upgrade was not realized

Currently, TPA relies on a listing of invalid credit cards to verify whether a credit card should be accepted. According to management, a credit card reader upgrade implemented in 2007 increased the list capacity from 1,000 to 10,000 credit cards. The increase in capacity was expected to lower the decline rate. However, this did not materialize as the decline rate rose instead.

Increase in credit card decline was partly due to media coverage

The credit card decline rate peaked at its highest level at over 10 per cent in August 2008. This was partly due to media coverage in July 2008, exposing the vulnerability of the pay and display equipment. The decline rate has since dropped to about seven per cent for the month of December 2008 and to six per cent at the time of this report.

Implementing on-line credit authorization system is a priority

As previously indicated, TPA is currently working with the vendor to develop and test a new on-line credit card processing system, which would eliminate the use of invalid cards. Given the significant amount of potential revenue loss from credit card payment declines, implementing on-line credit card processing should be a priority. Consideration should also be given to exploring other viable options prior to committing any significant additional investment in pay and display equipment.

3.2 Payment Card Industry Data Security Standard (PCI DSS) Compliance is a Priority

PCI DSS requirements

The Payment Card Industry (PCI) Data Security Standard (DSS) is a set of technical and operational requirements to protect cardholder payment data. It was developed by the founding payment brands of the PCI Security Standards Council, including American Express, MasterCard and Visa, to adopt consistent data security measures on a global basis.

Non-compliance could result in fines or termination of services

Since TPA accepts credit card payments, as a merchant, TPA is required to meet certification requirements according to the Payment Card Industry (PCI) Data Security Standard (DSS). Failure to meet these requirements could result in fines or risk losing the ability to process credit card payments. However, the risks are mitigated as long as merchants are actively working towards achieving compliance and demonstrating progress.

Efforts are underway to comply with PCI certification requirements

TPA has not met PCI DSS certification requirements. Efforts have been undertaken to comply with PCI certification requirements, including submitting required quarterly status reports. Management anticipates obtaining certification by the end of 2009.

Recommendation:

- 10. The President of the Toronto Parking Authority give priority to meeting the Payment Card Industry Data Security Standard (PCI DSS) certification requirements and report to the Board on the efforts made in that regard.**

3.3 Payment Card Chip and PIN Technology Requirements Need Clarification

The new chip and PIN technology enhances payment card security

With the introduction of new payment card chip and PIN (Personal Identification Number) technology, secure cardholder data will be stored on the microchip embedded in the payment card. This technology makes the card virtually impossible to copy or change. In addition, authentication requires the use of a personal identification number (PIN), which enhances security and reduces the risk of fraud.

EMV standards used in Canada

In Canada, the payment brands have agreed to use the EMV (Europay, MasterCard and Visa) standard. This standard was developed by EMVCo, which was formed by Europay International, MasterCard International and Visa International to ensure acceptance of chip payment cards globally. The EMV standard sets the specifications for chip and PIN technology.

Upgrades needed to meet new chip technology requirements

Migration to chip technology requires hardware and software upgrades to be able to read the new chip cards and process payments. Payment brands such as Visa, MasterCard and American Express have given merchants from 2010 to 2012 to implement new installation and upgrades to accommodate new chip technology.

Need to clarify chip technology requirement

One of the major reasons for the 2007 credit card upgrade was to provide a capability to accommodate the new chip and PIN technology when required. TPA currently has no immediate plans to adopt the PIN technology. Management indicated that they will seek clarification on whether chip technology would be sufficient without the PIN technology. In the meantime, the current credit card readers continue to read cardholder data from the magnetic stripe.

No significant benefit resulted from the credit card upgrade

In our view, given that the new chip technology is not yet operational, as well as the anticipated benefits such as reduction in credit card payment decline rates and lower communication costs were not realized, there was no significant benefit to the 2007 credit card upgrade.

Recommendation:

- 11. The President of Toronto Parking Authority determine payment card chip and PIN technology requirements and report to the Toronto Parking Authority Board on related action plans. Such report to include**
 - a. cost and benefit of implementation**
 - b. specific timelines and responsibility for implementation.**

4. INFORMATION SYSTEM CONTROLS NEED STRENGTHENING

4.1 Transaction Identification Controls Need to be Established

Pay and display equipment does not assign unique transaction numbers

Pay and display technology captures transaction details including equipment number, date, time, fee and type of payment. However, the system was not designed to assign a unique identification number for each transaction. As a result, the completeness of parking transactions processed cannot be readily determined.

Assigning sequential identification number to each transaction helps ensure completeness of data

We recognize that pay and display equipment is monitored remotely in real-time. This allows for alarms to be transmitted to a central monitoring station whenever a malfunction occurs. While this minimizes the occurrence of error, assigning a sequentially numbered identification for each transaction and accounting for its continuity would help ensure completeness of data.

Recommendation:

- 12. The President of the Toronto Parking Authority take steps to**
- a. request the vendor to modify the current operating system of the pay and display equipment to allow for assignment of sequentially numbered identification numbers for each parking transaction**
 - b. establish procedures to account for numerical continuity of all transactions to ensure completeness of data.**

4.2 System Documentation and Oversight Need to be Implemented

Credit card batch processing system developed by TPA staff

TPA staff has developed an in-house batch processing system to process credit card transactions. The system allows an automated process to identify credit card transactions and create a transaction file for transmittal to the credit card processor for authorization.

Lack of change management controls

Significant reliance is placed on two TPA key personnel who designed the system. We realize that system changes may be required to accommodate new developments. However, there are no policies and procedures requiring changes to be documented and approved by a responsible official. Staff who designed the system make changes as necessary without independent review and oversight.

Inadequate segregation of incompatible functions and lack of management oversight

The in-house system has been designed to generate reconciliations and exception reports. However, while staff indicates that major exceptions are investigated, there is no documentary evidence of the follow-up action taken and whether they have been satisfactorily resolved. In addition, staff conducting the follow-up is the same staff who designed the system. There is no independent review of system-generated reports. As a result, errors could occur without being detected.

Need to maintain integrity of information system

We recognize that with limited staff, adequate segregation of incompatible functions may not always be feasible. However, it is important that there is adequate management oversight to ensure errors or omissions are detected and resolved on a timely basis and that system integrity is maintained.

Need to maintain and review system access logs

While security passwords are required to access the system, access logs are not maintained. Maintaining system access logs and conducting periodic review of the logs would help detect unauthorized use or attempts and enhance system security.

Recommendation:

- 13. The President of the Toronto Parking Authority establish information technology policies and procedures to provide**
- a. change management controls requiring adequate documentation and approvals for changes to TPA’s information technology systems**
 - b. roles and responsibilities assigned to information and technology staff to ensure adequate segregation of incompatible functions**
 - c. adequate security controls including maintaining review of system access logs and conducting periodic review of the logs.**

5. ADMINISTRATIVE CONTROLS NEED TO BE IMPROVED

5.1 Calculation of Lost Meter Revenue Recovery Needs Consistency

Policy allows recovery of lost meter revenue due to filming or construction

According to TPA Policy Resolution 2-6, “whenever a street meter is out of service due to filming or construction permits issued by the City of Toronto, the filming company or contractor will be required to pay an amount of money equal to the days revenue from each meter”. Recovery from lost parking meter revenue for 2008 was over \$536,000.

Calculation of lost meter revenue not consistently applied

Our review noted no clear guidelines on how recovery amounts are calculated and who is responsible for determining such amounts. Currently, the recovery amount is determined by both TPA staff and Transportation Services staff using inconsistent calculation methods.

Recommendation:

- 14. The President of the Toronto Parking Authority, in consultation with the Toronto Transportation Services Division, establish guidelines with respect to recovery of lost meter revenue, outlining the**
- a. roles and responsibilities of TPA staff and Transportation Services staff**
 - b. basis for calculating the lost meter revenue recovery amounts.**

5.2 Accounts Payable Functions Need Restructuring

Accounts payable functions performed by the same individual

In order to ensure the validity of vendor payments, there should be proper separation of duties related to accounts payable. We noted that all accounts payable functions are performed by the same individual. We also noted there is no independent verification to ensure the validity and accuracy of vendor master updates. As a result, there is a risk of misappropriation without detection.

Recommendation:

- 15. The President of the Toronto Parking Authority implement controls over accounts payable activities to ensure master vendor file updates are**
- a. performed by someone independent of the accounts payable and disbursement functions**
 - b. properly documented and approved by management**
 - c. verified by an independent person to ensure accuracy.**

5.3 Criteria for Closed Meetings Need Compliance

City of Toronto Act, 2006 requires all meetings be held in public and provides criteria for closed meetings

Under the City of Toronto Act, 2006, all meetings of City Council, its local boards and committees must be open to the public, unless otherwise required or permitted by law. A meeting can only be closed if the subject of debate falls under one of several exceptions to the open meeting rules.

- Access to information request
- Advice subject to solicitor-client privilege
- Security of property
- Acquisition or disposal of land
- Personal information about an identifiable individual
- Labour relations or employee negotiations
- Litigation or pending litigation
- Education or training of members without decision-making

Certain in-camera items do not meet criteria for closed meetings

Several TPA agenda items discussed and approved in-camera did not meet the criteria for closed meetings. For example, warranty agreements, operating budget guidelines, outdoor advertising and lease agreements were considered in-camera rather than in public.

In addition, confidential reports discussed in closed meetings do not provide the reason why the information is confidential and recommendation stating when the information will be made public or reason why it must remain confidential.

Recommendation:

- 16. The Chair of the Toronto Parking Authority Board of Directors ensure that all items discussed in closed meetings meet the criteria stipulated under the City of Toronto Act, 2006 and follow City protocols with respect to confidential items.**

CONCLUSION

This report presents the results of our review of the Toronto Parking Authority revenue, expenditures and procurement practices. The review focused on pay and display operations.

The major issues identified in our review pertained to the following:

- Management's broad discretionary power on procurement practices
- Inadequate contracts and contract management controls
- Pay and display equipment limitations in preventing invalid credit card payments
- Inadequate administrative and information system controls.

Implementing the recommendations contained in this report will strengthen controls, improve accountability and result in potential cost savings.