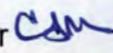




---

OFFICE OF THE CITY AUDITOR

TO: Mayor and Council Members  
THRU: Margaret Krym, City Auditor   
FROM: Kathy Magaw, Assistant City Auditor   
DATE: September 27, 2013  
SUBJECT: Accounts Payable – Search for Duplicate Payments

Attached is the Accounts Payable – Search for Duplicate Payments report. This review covered all payment transactions processed as a check request, purchase order, or Pcard within specified periods of time as outlined. Also included in the body of the report is the scope and objectives of this review.

This engagement followed the identification of a potential risk that was reported in the February 14, 2012, audit report issued on the Assessment of Internal Controls within the Procurement and Accounts Payable Process prepared by Clifton Larson Allen LLP.

As discussed in the report, after reviewing 100% of the transactions processed during our review period we found only 22 duplicate payments. Of these, 16 had been discovered and recovered by City staff before our audit work began. The remaining 6 that were identified during the audit totaled only \$1,357. Staff is to be commended on their diligent work effort to prevent duplicate payments and control these payment processes.

We would like to thank management and staff in the Financial Services Department, along with Lisa Nalepka, Accounts Payable Supervisor for their cooperation and assistance during the course of this review.

Should you have questions or need clarification regarding this report, please contact Kathy Magaw at 242-3381.

C: John Szerlag, City Manager  
Dolores Menendez, City Attorney  
Rebecca van Deutekom, City Clerk  
Victoria Bateman, Financial Services Director  
Lisa Nalepka, Accounts Payable Supervisor  
Audit Committee



CITY AUDITOR'S OFFICE

## Accounts Payable – Search for Duplicate Payments

September 27, 2013

### Background

On February 14, 2012, we issued the Report on the Assessment of the Internal Controls within the Procurement and Accounts Payable Process prepared by Clifton Larson Allen LLP. This report noted a possible area of vulnerability in the controls governing payments made as follows:

***“Duplicate payment to vendors*** - *While the automated system does not accept duplicate invoice numbers, CABs can override this control. The City should look into the appropriateness of the invoice override procedure and consider including a department’s supervisor approval of the override.”*

Based on this assessment of potential risk, the City Auditor’s Office initiated this audit review to search for duplicate payments utilizing data analytics software called IDEA.

### Scope and Objectives

The original scope included a review of all payment transactions processed via a check request or purchase order (PO) in the payment processing system in JDE (the City’s Financial System database) made between October 1, 2009 and September 30, 2012. The objective of the review was to identify any duplicate payments made to vendors.

During the engagement we identified an additional risk of possible duplication of payments between Purchase Card (Pcard) payments and check request or PO payments. Therefore, we expanded the scope to include a search of all Pcard transactions processed from October 1, 2011 to September 30, 2012.

### Methodologies Used

We engaged Alison Bogart, Bogart Risk Auditing, LLC who holds three certifications in the risk management field: Certified Internal Auditor (CIA), Certified Fraud Examiner (CFE), and CISA (Certified Information Systems Auditor). We utilized her expertise in the IDEA data mining software portion of this audit engagement.

Data, including all disbursements by check request or PO, was downloaded from JDE. Subsequently data was obtained from the Bank of America (BOA) Works database to include all payments made via Pcards.

All of the data (PO, check request and Pcards) was imported into IDEA software in a read-only format so that the original data would not be compromised during the algorithms analysis process. The data was inventoried and normalized so that similar values could be compared for both exact and approximate matches. We had two rounds of analysis where five different algorithms were used to compare the data sets. Each algorithm had a slightly different mechanism utilized for comparing data points that might indicate a duplicate payment had occurred and thus should be researched.

## Accounts Payable – Search for Duplicate Payments

IDEA software was utilized for this analysis so that 100% of disbursement data could be considered when looking for indications of a potential duplicate payment. During the period we examined, there were over 100,000 JDE transactions and over 9,500 BOA Pcard transactions.

Although there are systematic controls built into JDE to prevent the creation of a duplicate payment, we know that JDE only recognizes exact duplications. Also, JDE is heavily dependent on the quality of human data entry. The JDE preventative controls can only be effective when the data is accurately and completely input into the system. Further, because the process for Pcard disbursements is separate and runs parallel to JDE invoice processing, even with perfect data entry, purchases could still be paid once by Pcard and also by check. IDEA, however, is able to use a concept called “fuzzy matching” where similar payment transactions may be flagged for further analysis by the auditor and IDEA can join both the JDE and BOA databases for searching purposes.

At the conclusion of each of the five different algorithms processed, a set of data was produced, which represented a listing of possible duplications. Each of these was then researched in depth to verify whether it was or was not a duplicate payment.

### Conclusions

In total there were 81 possible duplicates identified. This represents 162 separate transactions. After research was completed we verified the following:

- 59 matches (118 transactions) of the 81 matches (162 transactions) were false positives. This means that they were not duplications but valid disbursements that were similar in nature.
- 22 matches of the 81 matches were transactions that were paid twice in error. With an approximate total number of transactions at 110,000, this represents less than one half of one percent. ( $44 / 110,000 = .04\%$ ). These 22 matches represented a total of \$7,890 in overpayments made.
- Of these 22 duplicate payments, 16 had been identified and corrected by City staff prior to our audit work. City staff had recovered \$6,533 or 83% of the overpayments before this audit began.
- Six additional duplicate payments were identified during the audit process. The amount of overpayment associated with these newly identified transactions is \$1,357. Of these the City has recovered \$177 and is seeking recovery for the additional \$1,180.

The 22 duplicate payments that were found are listed on Appendix A, which illustrates the following:

## Accounts Payable – Search for Duplicate Payments

- The 22 duplicates represented 14 different suppliers. We noted four suppliers that had multiple instances of a duplicate payment (e.g. five duplicates were associated with Office Depot).
- We noted 83% (or \$6,532) of the value of the overpaid funds we researched had already been handled and recovered by the City prior to this Internal Audit. These known instances were previously detected due to either, 1) existing City processes to manage disbursements, and/or 2) supplier notifying the City of receipt of a duplicate payment.

Also, Appendix A illustrates the eight root causes that contributed to allowing the 22 duplicate disbursements to occur. For some, more than one root cause applied.

The top three most common root causes related to the existence of de-centralized purchasing and invoice processing at the City:

1. 10 or 48% of the instances attributed to multiple City employees and departments having contact with one supplier.
2. 10 or 48% attributed to two different types of mechanisms being utilized to pay and interact with the supplier (e.g. sometimes Pcard pre-payment, and other times check payment after receipt of purchased item or service).
3. Nine or 43% attributed to various City employees not consistently entering the invoice number in JDE.

The other five root causes were as follows:

4. Five or 24% attributed to improper selection of the correct vendor record in JDE.
5. Five or 19% attributed to employee using paperwork other than an original invoice to process payment.
6. Two or 10% attributed to the supplier master record existing in JDE more than once.
7. One or 5% attributed to one expense being associated with two different purchase orders.
8. One or 5% attributed to a supplier saving a City Pcard number and charging transaction without authorization.

We are aware of efforts already underway to address the identified root causes and mitigate the risks associated with them. We have observed recent training efforts to instruct the CAB's (Certified Agency Buyer) in the various departments on:

## Accounts Payable – Search for Duplicate Payments

- Proper format for entering invoice numbers.
- Use of only original documentation for authorizing payments.
- Careful selection of vendor supplier records.

We have also been advised that the Financial Services Department has taken proactive steps to remove or correct duplicate vendor accounts.

The two largest root causes, (multiple City employees having contact with one supplier and two different types of mechanisms utilized to pay and interact with the supplier) are more difficult to address in our current environment of decentralized processing.

### **Suggestions**

Despite the very low percentage number of duplicates found, the following suggestions are offered as possible mitigating responses to the identified root causes. These suggestions could be considered by management in their further efforts to continue to reduce any occurrences of duplicate payments.

**Suggestion one:** For large volume suppliers utilized by multiple departments, consider implementing any of the following:

- a. Centralize invoice processing for that supplier, and/or
- b. Standardize payment method for that supplier by requiring all purchases be via Pcard
- c. Require monthly post-mortem purchase analysis of known problem suppliers

**Suggestion two:** Expand the Pcard data uploaded into JDE so that the supplier name is more easily identifiable when searching JDE supplier records and supplier transactions.

**Suggestion three:** For suppliers that run Pcards without proper City authorization, receive supplier management confirmation that credit card data is not stored. For repeat offenders, consider requesting BOA cancel and re-issue the Pcard with a new number (making the saved Pcard invalid).

**Suggestion four:** Consider implementing a “pre-mail” quality assurance process where a second person is reviewing documentation to see if the check payee on the freshly printed City check exactly matches the “payable to” instructions on the supporting invoice.

**Suggestion five:** Continue to train and retrain employees on the critical control points that increase likelihood of detecting duplicates:

- a. Stress that JDE can only recognize “exact duplicate entry” of invoice numbers, which means that individuals inputting invoice data should always refer to the City AP guideline document that provides proper numbering to ensure consistent data entry (especially important to follow for suppliers where invoice number formats vary).

## Accounts Payable – Search for Duplicate Payments

- b. Only original invoice documents can be used to process payments, do not use packing slips, order summaries, or duplicate invoices for payment processing. Further double check invoices to ensure they have not already been paid via Pcard and that the invoice sent is to be considered an FYI copy.

**APPENDIX A - LIST OF 22 DUPLICATE INSTANCES**

Timing of Duplicate Disbursmt	Vendor	Amount	Bsns Unit or FUND	Who originally identified duplicate	Timing of Recouping Funds related to duplicate payment			ROOT CAUSE situations that allowed duplicate to occur									
					Prior to Internal Audit	During Internal Audit (recouped between 1/1/13 and 8/15/13)	Audit identified but Not Yet Recouped	More than 1 Employee contacts the supplier	2 different payment mechanisms used for this supplier (sometimes P-card, sometimes check; OR manual entry versus upload)	Employee did not input the Invoice Number consistently (e.g. dropped dash)	Wrong Supplier Record used in JDE (Vendor name change or input errors)	Employee used supplier paperwork that was NOT an original invoice (Order Summary, Packing Slip, etc)	Vendor record duplicated in JDE	2 different POs associated with purchase	Vendor saved City P-card & used without authorization		
1	11/28/11	CENTURYLINK	\$ 927.29	118303	Int Aud			\$ 927.29	x								
2	10/26/11	CUMMINS POWER SOUTH LLC	\$ 363.79	500221	Vendor	\$ 363.79						x					
3	09/09/09	EDWARD DON & CO	\$ 332.28	4900	Vendor	\$ 332.28							x				
4	05/07/12	ENFORCEMENT TECH/ELECTRONICS	\$ 303.78	121203	Vendor	\$ 303.78						x					
5	07/01/11	FL DEPT OF ENVIRON PROTECTION	\$ 300.00	10000	Vendor	\$ 300.00			x					x			
6	03/07/12	KELLY TRACTOR CO	\$ 177.59	44000	Int Aud		\$ 177.59			x						x	
7	10/02/12	LUPO JOHN	\$ 60.35	40100	Int Aud			\$ 60.35		x							
8	02/07/12	MIDWEST CONSTRUCTION PROD	\$ 1,512.75	440030	Dept	\$ 1,512.75											x
9	03/19/10	OFFICE DEPOT INC	\$ 53.26	10000	AP	\$ 53.26			x	x	x		x				
10	10/25/10	OFFICE DEPOT INC	\$ 210.88	27200	AP	\$ 210.88			x	x	x		x				
11	03/09/10	OFFICE DEPOT INC	\$ 22.08	10000	AP	\$ 22.08			x	x	x						
12	07/08/10	OFFICE DEPOT INC	\$ 43.14	27200	Int Aud			\$ 43.14	x	x	x						
13	07/26/10	OFFICE DEPOT INC	\$ 19.11	27200	Int Aud			\$ 19.11	x	x	x						
14	03/08/12	PRO SOURCE ONE	\$ 1,979.20	44000	Dept	\$ 1,979.20						x					
15	03/08/12	PRO SOURCE ONE	\$ 178.00	44000	Dept	\$ 178.00						x					
16	02/15/10	STAPLES	\$ 71.41	27200	AP	\$ 71.41			x	x	x		x				
17	02/16/10	STAPLES	\$ 4.23	27100	AP	\$ 4.23			x	x	x						
18	02/16/10	STAPLES	\$ 17.10	27100	AP	\$ 17.10			x	x	x						
19	07/03/12	TROPIC SUPPLY INC	\$ 367.95	500221	Dept	\$ 367.95				x							
20	05/27/12	WATERMAN BROADCASTING CORP	\$ 544.00	27100	Vendor	\$ 544.00						x					
21	06/17/12	WATERMAN BROADCASTING CORP	\$ 272.00	27100	Vendor	\$ 272.00						x					
22	10/26/11	J.M. TODD	\$ 130.00	120001	Int Aud			\$ 130.00					x				
		<b>22 duplicates for 14 vendors totaling</b>	<b>\$ 7,890.19</b>			<b>\$ 6,532.71</b>	<b>\$ 177.59</b>	<b>\$ 1,179.89</b>	<b>10</b>	<b>10</b>	<b>9</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>1</b>	
						<b>83%</b>	<b>2%</b>	<b>15%</b>	<b>48%</b>	<b>48%</b>	<b>43%</b>	<b>24%</b>	<b>24%</b>	<b>10%</b>	<b>5%</b>	<b>5%</b>	