

Accounts Payable Division

Background, Observations and Recommendations

Purpose

The Accounts Payable function of Richmond Public Schools is responsible for:

- The timely payment of invoices, travel and all related costs incurred by the School District, including generating and mailing checks,
- Data entry into the financial accounting system, and
- Providing customer service to RPS employees and vendors, including resolving questions or issues that may arise concerning vendor payments.

Workload

During the audit period, Accounts Payable staff processed approximately:

- 37,000 laser checks in the amount of \$198 million
- 300 manual checks in the amount of \$2.6 million
- 170 replacement checks in the amount of \$937,000

Internal controls

Internal controls over the accounts payable function appear to be weak. Weak controls could lead to abuses resulting in financial losses. RPS administration has a fiduciary duty to have proper accountability over the resources entrusted to them. This report addresses several internal control issues that need immediate attention.

***Completeness
of financial
records***

Auditors found that not all accounting transactions are entered into the system. Accounts Payable sets aside a portion of its manual check stock as “replacement checks” to use when there is a stop payment placed on a lost or destroyed check. Normally, all lost, destroyed or erroneously prepared checks should be voided in the main accounting system and all reissued checks should be recorded. However, RPS Finance does not record “replacement” checks when the payments have been stopped on the original checks. When issuing replacement checks, Accounts Payable maintains a manual log of issued replacement checks which is used to reconcile every month. When asked why such a practice was put in place, RPS Finance could not furnish a sound business reason. During the audit period, RPS issued 170 replacement checks with an approximate value of **\$937,000** which were not captured in the financial system.

***RPS’ financial
records do not
include all
financial
transactions***

***Errors and
omissions may
not be
detected due
to incomplete
record
keeping***

This process creates discrepancies in financial records, promotes confusion, and allows a significant avenue for errors or misuse. For example, when RPS issues a replacement check to cover a voided check, the expense is not reentered into CIMS/FMS because RPS does not record replacement checks. When using replacement checks, there is also the possibility that the check could have a different payee name and address. Duplicate payments made due to this practice may result in a significant loss. Auditors identified that, during the 21-month audit period, RPS issued \$121,073 in duplicate payments. Some of these payments could be related to replacement checks. This situation, if it occurs, would result in a loss to RPS. As a result of the audit, RPS issued an internal memo to its accounting staff to abruptly abolish the practice of issuing replacement checks.

The issuance of a replacement check or errors in this process may not be detected in a timely manner since RPS does not have adequate bank reconciliation procedures as described below:

***Bank
reconciliation
procedures***

Cash is the most liquid asset an entity has and thus is the most susceptible to error and irregularity. According to best practices, bank statements should be reconciled to the general ledger in a timely manner to detect errors and irregularities. The idea behind preparing a bank reconciliation is to use the independently derived cash balance (bank statement) to verify accuracy of the balance derived from recorded transactions. This process assures that the record of transactions in the general ledger is complete and accurate.

***RPS does not
perform
traditional bank
reconciliations***

RPS does not perform a traditional bank reconciliation. Basically, RPS personnel reconcile the bank balance with outstanding checks and relevant adjustments. This means that, as long as the list of outstanding checks reconciles with the bank balance, any errors in the general ledger balance will not be detected by this process. The list of outstanding checks is not reliable as none of the replacement checks are entered into the system. Sometimes a check is voided in error when a replacement check is issued. This will result in an understatement in the outstanding checks total and introduce an error in the general ledger balance. Also, in this situation, the cash balance in the general ledger could be used to hide errors or omissions that will not be easily detected.

RPS informed the auditors that deposits to the main disbursement bank account get recorded into a different general ledger object code account

Incomplete records and lack of proper bank reconciliations may not identify error or inappropriate transactions

than the account from which payment withdrawals are made. This method does not represent traditional accounting procedures. No explanation was provided to the City Auditor staff or the external auditors for the deviation. Unless all deposits and withdrawal are posted to the same object code account, a reconciliation cannot be effectively performed. When asked the reason for choosing such a cumbersome reconciliation process, which is both difficult to perform and deficient in providing a transparent audit trail, the RPS Finance Director could not provide a sound business reason.

Recommendations:

- 57) Void all the checks in the system for which either stop payments have been made or the check has been reissued.**
- 58) Record all the replacement checks in the system.**
- 59) Record all receipts and disbursements pertaining to a bank account in the same object code.**
- 60) Properly reconcile the general ledger cash balance with the bank statement balance.**

Departmental invoices (DIs)

Departmental Invoices are internally created documents to generally pay for expenses for which vendor invoices are not expected. According to their policy, RPS utilizes Departmental Invoices to process payments for:

- Cash advances for travel, hotel registration and conference and meeting registration
- Mileage reimbursement
- Tuition and purchased books reimbursements
- Utility payments
- Postage

- Certain payroll taxes
- Student activity fund reimbursements

***Use of
Departmental
Invoices has
resulted in non-
compliance with
purchasing
policies***

The auditors identified 22 out of 72 Departmental Invoices worth \$58,180 in payments that appeared to be exceptions to RPS policy. These were mainly payments for services or products that probably should have been procured through a purchase order. In addition, the auditors noted a couple of items paid on Departmental Invoices that had other control implications:

One such item was a reimbursement for lunches payable to the Linwood Holton Elementary which did not include evidence of payment of an attached invoice to a 3rd party vendor as a basis for reimbursement. Another item was a payment to a school employee for \$395 for petty cash and vending machine change which did not have additional support. Payments issued through DIs amount to requests for payment which lack evidence of authorized signatures.

When asked about non-compliance with Departmental Invoices, the Finance Director informed the auditors that non-compliance letters are sent to vendors as such instances are discovered; however, the Finance Director acknowledges the minimal staffing in Finance does not allow them to properly monitor compliance. Consequently, there is already an acknowledged breakdown in control enforcement with no apparent consequence to RPS personnel.

Inappropriate use of Departmental Invoices bypasses the procurement function. Consequently, RPS may not obtain the best prices or quality. There is a potential risk of violating contractual agreements. Secondly,

the inappropriate use of Departmental Invoices without adequate support increases the risk of fraud and waste. Finally, the inappropriate use of Department Invoices can increase the risk of duplicate payments when a Department Invoice number is used instead of a vendor invoice number.

Departmental Invoices do not require either a purchase order or a receiver

Departmental Invoices do not require either a purchase order or a receiver. In order to process payments through Departmental Invoices, the end-users submit the Departmental Invoice form and support. Accounts Payable ensures that the form is signed. However, they do not maintain an authorized signature listing. Consequently, they are not in a position to verify whether the individual approving the form is authorized to commit RPS funds. In these circumstances, Departmental Invoices can be prepared for unauthorized expenses. This type of abuse, if occurred, could result in losses for RPS.

The auditors estimated that significant amounts (\$38 million) of expenditures were processed through Departmental Invoices. Furthermore, the procurement function is bypassed through the inappropriate use of Departmental Invoices. This can result in additional costs stemming from inferior goods and services purchased at prices not negotiated or outside of existing contracts.

Recommendation:

- 61) Monitor and ensure adherence to Departmental Invoice policies and procedures.**

*Excessive
check
pick-ups*

This audit points out that there is lack of segregation of duties that can allow certain employees to record transactions and print corresponding checks. In addition, if these individuals have access to the printed checks, it compounds the weakness in controls. One of the ways to reduce fraud in the accounts payable area is to limit the number of checks that are picked up. Exceptions to mailing should be on the rare occasions when delivery is urgent to meet certain immediate obligations. It is common practice to have a policy in place to limit the number of employees allowed to pick up checks.

Also, returning checks back to the requester is associated with the risk of alteration and diversion. At the City of Richmond, a significant fraud was perpetrated in 2003. This fraud was facilitated by the City's policy to allow the checks to be picked up routinely by employees and vendors.

At RPS, during the audit period, the auditors reviewed the check pick-up log and counted about 3,000 checks picked up totaling approximately \$8 million. RPS does not have a list of employees authorized to pick up checks. Without such authorization, any employee can pick up checks.

Recommendations:

- 62) Ensure that there is a documented list of employees authorized to pick up printed checks.**
- 63) Mail the checks directly to payees unless justification is provided on an exception basis.**
- 64) Define exceptions to this policy.**

***Timeliness
of
payments***

According to the *Virginia Prompt Payment Act 2.2-4352* if a date is not established by contract, invoices should be paid no more than 45 days after goods and services are received or not more than 45 days after the invoice is rendered, whichever is later. The auditor randomly selected 103 checks which included 241 invoices. Testing revealed RPS paid 99 invoices totaling \$371,954 *before the due date*. It also revealed that 61 invoices totaling \$114,243 were paid after the due date. The remainder were deemed to have been paid properly.

***RPS needs to
improve its
compliance with
the Virginia
Prompt Payment
Act***

As pointed out in the earlier cash flow review of the City of Richmond and RPS conducted by the City Auditor's Office, early payments impact cash flow resulting in additional borrowing costs. Late payments could result in late charges and noncompliance with the Prompt Payment Act.

Recommendations:

- 65) Require timely payments in accordance with the Virginia Prompt Payment Act.**
- 66) Negotiate with vendors not offering cash discounts to stretch the payment terms to pay no later than 45 days after goods and services are received or no later than 45 days after the invoice is rendered, whichever is later.**
- 67) Train staff to ensure adherence to the new procedures.**

***Three-way
match***

An organization must assure that product and services being paid for were actually ordered and received. The three-way match is a commonly used control to obtain this assurance. In the RPS financial system (CIMS/FMS), a three-way match mitigates procurement fraud by preventing payment for goods/services that were either not received

or were received without a purchase order in violation of laws and policies.

Auditors reviewed RPS policies and procedures, interviewed RPS personnel, and requested information from RPS' IT Department to determine various employees' system access levels. Also, auditors reviewed alternate ways that RPS pays invoices.

The intent of this process is to mitigate the risk of errors and irregularities occurring

As the system is configured, payments for purchases can only occur through CIMS/FMS if the quantity of units of product or services included on the electronic entry of purchase order matches with quantity entered on the receiving document and invoice. It is critical that the three documents (purchase order, receiver, and invoice) are entered by different employees assuring independent verification of ordering, receiving and payment. The intent of this segregation of duties is to mitigate the risk of errors and irregularities occurring. Segregating processes involving authorization, custody of assets, and recording of financial transactions is the principle behind the three-way match. Obviously, with the amount of RPS resources committed through their purchasing and accounts payable systems, having appropriate controls in these processes are essential.

Audit tests revealed several issues related to the three-way match:

Internal controls in the three-way match process need improvement

1. RPS information technology personnel provided information showing the individuals who are authorized to enter a purchase order, receiver, and invoice without additional approval. Presently, 15 individuals can enter information for all three tasks. In addition, all accounts payable personnel can add, change, or delete vendors; enter receivers; and enter invoices. This indicates that if an individual granted the above rights

decides to pay a fictitious invoice, he or she will have ability to do so. This event, if it occurs, would not be detected in the normal course of business.

2. The three-way match procedures can be overridden by an Accounts Payable staff when processing DIs and BPOs. The annual value of these transactions are noted below:

FISCAL YEAR	BLANKET PURCHASE ORDERS	DEPARTMENTAL INVOICES
2006	\$24,317,684	\$18,970,039
2007	\$17,446,520	\$19,361,630

The RPS process does not require entering the quantity of units for products and services purchased through DI and BPO. Again, this is a significant control weakness that is vulnerable to abuse.

Audit tests found two pieces of equipment worth \$7,000 missing

To illustrate the issue, auditors noted that at least three Texas Instrument TI Navigators worth about \$10,500 were paid through DIs. Since DIs do not go through the Purchasing Division, Purchasing has no way of monitoring non-compliance. Further investigation indicated that two out of the twenty TI navigators purchased, worth about \$3,500 each, were missing. According to RPS staff, one of the navigators was lost in transit between the Instruction Department and Martin Luther King Jr. Middle School. In total, one is missing and one is lost. This matter will be further investigated by the City Auditor's Office.

Accounts Payable staff are required to verify approvals but they do not have access to specimen signatures of authorized individuals

The Accounts Payable personnel are instructed to look for an authorized signature on Departmental Invoices and invoices related to blanket purchase orders prior to overriding the system controls and making payments. However, these employees do not have access to the list of specimen signatures of the personnel authorized to approve such purchases. Therefore, the Accounts Payable staff has no way of verifying proper authorization. To illustrate lack of controls, the following example is included. A \$10,872 payment approved by an office associate for an individual who had retired and had been rehired as a temporary employee was paid by the Accounts Payable personnel. They did not question the authority of the office associate.

3. Currently, RPS is not using the automated the three-way match effectively to verify controls over purchases. In addition to weaknesses in the internal controls, these circumstances introduce significant inefficiency in the payment processing.

In summary, the three-way match and approval controls over accounts payable transactions are unreliable. Multi-million dollars of RPS resources are exposed to the risk of waste, fraud, and abuse.

Recommendations:

- 68) **Ensure that duties of entering and approving procurement and payment documents are properly segregated.**
- 69) **Establish a complete authorized signatory listing of all RPS employees who are authorized to approve transactions and commit RPS funds for payment.**
- 70) **Enforce the authorized signatures process by rejecting any requests that do not comply with the listing.**

***Non-compliance
with Credit Card
Policy***

RPS policy Section 3.06 on “Travel and Miscellaneous Business Expenses” lists some key points with regard to the purchase of gasoline and the use of credit cards. At RPS, local gasoline purchases must be made through the Richmond City-operated gas station, and any emergency purchases (i.e., after hours) must include the receipt with a written explanation as to why the purchase was necessary. The payment process for School credit cards requires that credit card statements be mailed directly to cardholders who are responsible for:

***Several
discrepancies
were noticed in
payments for
credit cards
assigned to RPS
Administration
and School
Board members***

- Attaching receipts for every charge to the statement.
- Attaching supporting documentation/justification when necessary. This includes certain RPS internal forms whose purpose is to clearly identify and document the nature of a conference, authorization to attend the conference, hotel rates, and guidelines for meal receipts including the names of persons and the business purpose of the meal. This section also prohibits the use of the credit card for any purchases that circumvent budget compliance safeguards and established purchasing procedures.
- Certifying that all expenditures are official school business.
- Preparing a DI and indicating the correct account numbers to be charged.
- Submitting the DI with all supporting documentation to Finance five working days prior to the due date.

The Policy clearly states that personal use of School Board credit cards is prohibited. The policy further states that “employees traveling to high-cost cities whose daily expenses exceed the maximum limit will submit receipts with their reimbursement claim. These receipts will be

reviewed for reasonableness and reimbursements made as appropriate.”
However, there is no formal guide.

The auditors selected a statistical sample of 30 credit card payments totaling \$27,710 for RPS Board members and RPS management. The total of all credit card purchases was about \$45,000 during the audit period.

***Expenses
included
inappropriate
and
questionable
charges***

Charges on all credit cards issued to the School Board members and management staff had the following non-compliance with one or more RPS policy requirements:

- Except for one payment which included some receipts, receipts were not attached for charges to the credit card statement.
- The credit card statement did not have relevant supporting documentation or justification attached to identify the business nature and purpose of the trip.
- Meal charges in excess of the \$50 daily cap were incurred with no receipts with names of people printed on the back of the receipt identifying them, and the purpose of the meal. The policy on meal charges does not require receipts for reimbursement of meal expenses unless they exceed the maximum daily total of \$50. However, the policy also states that “cardholders are responsible for attaching receipts for every charge to the statement.” This may confuse the cardholders who may not accumulate meal receipts for less than \$50 even when the School credit card is used for the payment purposes.
- Richmond area hotel charges for \$461 with no receipts or explanations.

- Food and miscellaneous charges in the Richmond, VA area for \$2,983 without documentation to explain business purpose or attendees.
- For single meals greater than \$25, neither receipts nor explanations were attached as required. The total expenditure in this category was \$726.
- Card charges were often self-approved by the card holder or approved by an apparent subordinate; two charges were approved by RPS Internal Audit (RPS policy is silent on who is supposed to approve credit card statements for payment).
- One of the former RPS employees incurred a \$1,950 charge for 5 transcription units that appears to bypass the procurement function.
- Charges totaling \$2,205 for High-speed IP access for an RPS event was paid for with no receipts or explanations appearing to bypass the procurement function.
- No statements were found with a certification of the business purpose of the expenditures as required by the RPS policy.
- Past-due balances and finance charges were incurred as a result of untimely payments.
- Unpaid card balances were carried over from the previous month with no details.

In addition to above, the charges on two former School Board members' credit cards included the following:

- \$485 in gasoline purchases in the Richmond area with no receipts or explanations. The business purpose of these charges is unknown.
- \$10 for one on-line charge to an inappropriate website.

- \$175 for Western Union money order. The payee and the reason for issuing the money order are not known.

In summary, the available documentation did not corroborate that credit card charges were incurred for legitimate business expenses as opposed to a possible personal use of these credit cards. Also, formal policy does not provide complete guidance on what expenses are reasonable when RPS personnel are planning travel to other cities. This increases the risk that credit card use may be abused and that expenses may not be reasonable.

Recommendations:

- 71) **Provide training for all card holders and designated approvers on the proper use of school credit cards and proper documentation of expenses required by RPS policy.**
- 72) **Resolve any inconsistencies related to receipts requirements for meal expenses when paid by School credit cards.**
- 73) **Devise formal guidelines on enforcement and disciplinary action for violation of the Policy.**
- 74) **Require approval by superiors for the credit card charges of subordinates.**
- 75) **Consider adopting per diem guidelines already in use by Virginia state agencies and defined in the Commonwealth Accounting Policies & Procedures Manual (CAPP) Section 20335 (revised 10/1/2007).**

The current manual mailing process is inefficient

The auditors previously noted that about 37,000 laser checks were issued over the audit period. Presently, these checks are printed out at the Richmond Technical Center and transported to RPS Accounts Payable in City Hall. The checks are manually stuffed in envelopes by Accounts Payable personnel. This process is inefficient and consumes

resources. Auditors compared this process with the procedures followed by the City of Richmond. The City Finance Department uses pressure-sealed check stock that does not require stuffing. The checks are ready for mailing after they have been run through a sealer machine. This procedure is automated and significantly efficient.

Efficiencies can be gained by following the mailing process used by the City

The cost of pressure-sealed check stock through RPS's current supplier, Business Forms Specialty, is about \$107.70 per 1,000 checks which is about 11 cents per check. This is based on what the City of Richmond, which uses the same check supplier, currently pays for its pressure-sealed check stock. The City of Richmond has a printer and a folding/sealing machine onsite that can readily be used by RPS for printing and mailing checks at minimal cost. Automation of this task is not only much more efficient, but it will remove the risk of checks being returned to Accounts Payable personnel which is a fundamental segregation of duties issue, and free up staff time for more value-added tasks.

Best practices suggest that signed checks be mailed directly to vendors instead of remaining on an entity's premises or being returned to Accounts Payable in order to limit the risk of check diversion and alteration. Research show that changes in the Uniform Commercial Code could make organizations liable for check fraud if they don't take "ordinary care."

Recommendations:

- 76) Require personnel who have no accounts payable-related duties to handle checks requiring special handling such as hand delivery, etc.**

- 77) **Purchase pressure-sealed check stock to replace current laser check stock.**
- 78) **Work out an arrangement with the City of Richmond to transfer the task of printing and mailing Accounts Payable checks.**

The positive pay feature is offered by banks to deter check fraud

Positive pay is a term used to describe a feature that helps to prevent fraud. The bank compares the checks that it receives for payment against an electronic record of checks issued by an entity. It matches the account number, check number, amount and payee information with the data file. If there is no match, an exception is identified and the account holder is notified. The check is not honored by the bank which prevents the cashing of an unauthorized check. This is a very common practice adopted by the public and private sectors.

Check fraud occurs by copying, reproducing or changing payee information on a check and committing forgery. There is an increased need to protect government assets due to the rapid change in technology. With significant weaknesses in procurement and accounts payable controls, it is likely that RPS could be a target of check fraud.

In 2007, the Association for Financial Professionals and Electronic Payments Network (EPN)¹ performed a survey of over 3,000 corporate entities about payment fraud which revealed the following key results:

- 72% of survey respondents reported that they experienced attempted or actual payments fraud in 2006.
- Checks continue to be the preferred target of thieves.

¹ Association for Financial Professionals, Inc., "2007 AFP Payments Fraud Survey- Report of Survey Results", AFP research (March 2007) <http://www.afponline.org/pub/pdf/2007PaymentsFraudSurvey.pdf>, accessed September 14, 2007

- Altered payee names on the checks issued (61%).
- Nearly half of the organizations added to their internal controls and procedures during the year to bolster protection against payments fraud. These additions included performing more frequent audits, reconciling the accounts more frequently and improving the timely return of payments.

There are several different levels of positive pay options at RPS's banking institution:

- “*Basic positive pay*” compares checks presented for payment against an issued file with no hard copy account reconciliation.
- “*Premiere positive pay*” funds only those checks that will clear based on “matched items” for that day.
- “*Teller positive pay*” matches checks presented over-the-counter at any of the banking centers to a file prior to cashing the check.

RPS does not have the ability to use the positive pay feature as the bank accounts are owned by the City

Unfortunately, RPS does not have the ability to use the positive pay services for protection against fraud because the account is owned by the City of Richmond. As such, RPS cannot make any changes to the account unless the City authorizes them. A similar observation was included in the recent audit of the City's procurement and accounts payable processes. A recommendation was made to implement positive pay procedures. According to the banking institution, the City is currently soliciting proposals for banking services for the City and RPS which includes the use of positive pay.

According to the Government Finance Officers Association (GFOA), positive pay is the single best fraud prevention device available. The GFOA recommends that governments consider implementing positive pay to protect them against bank account fraud.

To implement positive pay, RPS would need to create and transmit daily electronic check issue files to the bank. RPS would then arrange for someone in Accounts Payable to routinely investigate any exception wherein a check presented for payment at the bank varied from the electronic check file information and respond within a specified amount of time. According to the banking institution, the cost of this service would be included in its account analysis fees and would probably result in no additional fees. RPS would also have to develop policies and procedures to send electronic files for manual checks currently issued.

Recommendation:

- 79) Solicit the City of Richmond to implement positive pay with the bank accounts used by RPS.**

***Laser check
stock***

***RPS does not
use serial
control
numbers on
its laser check
stock***

Normally, blank checks are pre-numbered. This is a basic control that allows the Finance Department to determine if all the checks are accounted for. RPS does not use serial check control numbers on its laser check stock. A prudent practice would be to have pre-numbered checks and maintain a log of checks used for the purposes of reconciliation with blank check inventory. By contrast, the City of Richmond uses control numbers on its checks and reconciles the control numbers with the checks used. A log record of checks used and printed is maintained. The absence of this control appears to be an

obvious control deficiency in detecting missing checks. If detected timely, an unauthorized cashing of such a pilfered check could be prevented. However, the RPS Finance Director does not consider missing checks to be a significant issue.

RPS needs to use all available check stock security features

In addition, due to advancement in computer technology, it is not difficult to reproduce check stock by amateurs. According to Check Fraud and Identity Theft, Volume 6 by former international fraudster turned banking consultant Frank Abagnale, the recent growth in check fraud has reached epidemic proportions, leaving no individual, company or organization immune. Furthermore, Mr. Abagnale notes that the Uniform Commercial Code 3-406 says that if account holders fail to exercise “ordinary care”, the organization may be restricted from seeking restitution from the bank if its own failures contributed to a forged or altered check. More than 1.2 million worthless checks enter the banking system each day. The Nilson Report advises that annual check fraud losses now exceed \$20 billion, which is up from \$12 billion in 1993. The American Bankers Association reports that check fraud is growing at a 25 percent rate.

The auditors compared the security features of checks used by RPS with the industry standards as follows:

Security Feature	Used by RPS?
1. “Controlled paper” is manufactured with many built-in security features such a true watermark, visible and invisible (UV light-sensitive) fibers and multi-chemical sensitivity.	YES
2. Multi-chemical reactive paper which produces a stain or speckles or the word “VOID” when activated with ink eradicator-class chemicals. This makes chemical alteration of a check extremely difficult to do without detection.	YES
3. Fourdrinier watermarks (used on manual checks only) which are faint designs pressed into the paper while it is being manufactured. When held to light these true watermarks are easily visible for instant identification.	NO

High-resolution borders (used only on Laser- printed checks) are intricately designed borders that are difficult to duplicate. They are ideal for cover security as the design distorts when copied.	
4. Artificial watermarks are subdued representations of a logo or work printed on paper. These marks can be viewed while holding the document at a 45° angle. Copiers and scanners capture images at 90° and cannot see these marks.	YES
5. Toner anchorage is a chemical coating applied to the face of check stock. When the check passes through a hot laser printer, the toner is melded into the tone anchorage on the paper. Without it, laser checks can be altered by removing the toner.	YES
6. Warning bands are printed messages that call attention to the security features added to protect the check. The bands should instruct the recipient to inspect a document before accepting it and may deter criminals from experimenting.	YES
7. Microprinting (used only on Laser-printed check stock) is printing so small that it appears as a solid line or pattern to the naked eye. Under magnification, a word or phrase appears. This level of detail cannot be replicated by most copiers or desktop scanners.	NO
8. Controlled check stock means high-security checks printed on controlled paper. The check manufacturer doesn't allow the checks to be sold entirely blank without first personalizing the check stock.	YES
#9. Thermochromatic ink reacts to changes in temperature. Some thermo inks begin to fade away at 78°F and disappear at 90°F. This reaction to temperature change cannot be replicated on a color copier or laser printer.	NO
#10.Holograms are multicolored three-dimensional images that appear in a reflective material when viewed at an angle. They are an excellent but expensive defense against counterfeiting in a controlled environment. Holograms are not usually cost-effective on checks.	NO
#11..Dual Image Numbering creates a red halo around the serial number or in the MICR line of a check. The special red ink also bleeds through to the back of the document so it can be verified for authenticity. Color copiers cannot replicate these images.	NO
#12..Laid lines are unevenly spaced parallel lines on the back of the check that make physical cutting and pasting of dollar amounts and payee names difficult to perform without detection.	NO
#13..Copy Void Pantographs are patented designs developed to protect a document from being duplicated. When copied or scanned, words such as "VOID" or "COPY" become visible on the copy, making the copy non-negotiable; however, this feature can be circumvented by high-end copiers.	NO
#14.. Fourdrinier watermarks —(see #3 above). Not used on Laser-printed checks.	NO
High-resolution borders (see #3 above). Not used on manual checks	
#15..Microprinting—(see # 7 above). Not used on manual checks.	NO

Control over manual or laser-printer check stock is not appropriate. The Accounts Payable staff has full access to manual and replacement checks. During the scope of the audit, RPS issued manual payments of approximately \$2.6 millions (312 checks).

Recommendations:

- 80) Use serial control numbers on laser checks.**
- 81) Devise a formal policy for keeping strict inventory control over laser check stock.**

Manual check stock

RPS uses a separate set of checks for manual checks. Manual checks are kept at a secured location out of reach from the general public. However, the Accounts Payable personnel have ready access to these checks including weekends. There are no formal policies or procedures for taking periodic inventories or restricting access to the check stock. During the audit period, 312 manual checks were issued totaling about \$2.6 million. During the random testing of 58 manual checks, the auditors found that 52% of the checks had no evidence of review or approval by supervisory personnel which is a Policy requirement; therefore, misuse of these checks will not be detected in a timely manner.

Multiple individuals have access to blank manual checks

RPS issues an excessive number of manual checks

Manual checks are only supposed to be used for true emergency situations. RPS issues an excessive number of manual checks compared to its peers. A survey of the public schools of similar size indicated that the total number of manual checks issued by these organizations ranged between 0 and 36 during FY 2006. However,

RPS issued 225 manual checks (excluding replacement checks) during this period.

Manual checks are issued outside of the normal payment cycle. There are reasonable explanations for their use, but they are costly because certain tasks must be performed twice to ensure that the entity's records are updated correctly. If positive pay is used, the bank must also be notified or the payee will not be able to cash the check. Rush checks are one of the leading causes for duplicate payments and fraud because of the breakdown in normal internal controls associated with the check production cycle.

Recommendations:

- 82) Restrict access to manual checks to individuals who have no accounts payable-related duties.**
- 83) Perform periodic inventories of manual check stock by individuals with no accounts payable-related duties which will be reviewed and approved by supervisory personnel.**
- 84) Use of manual checks should be restricted to true emergencies.**
- 85) Emergencies requiring manual checks should be formally defined by RPS policy.**

Vendor discounts

Early payment discounts represent a significant opportunity for cutting costs. For example, if a vendor offers a 2% discount for a payment made within 10 days on a \$5,000 invoice with a due date 30 days from the date of the invoice, it will yield a 36% annual return. Moreover, the early payment discounts can be earned for the short term in a risk-free manner whereas investments are typically associated with market risks.

To ignore the value of discounts when negotiating is not a sound fiscal practice.

The Commonwealth of Virginia's Policy on Prompt Payments (Topic #30315 in its CAPP manual) states that agencies should negotiate reasonable cash discount terms. That policy also asserts that cash discounts should be taken except when:

- the administrative cost of expedited invoice processing exceeds the amount of the cash discount,
- the time required to process the invoice exceeds the discount period, or
- the annualized rate of return is less than the current investment rate earned on interest-bearing accounts.

RPS does not have a policy to negotiate early payment discounts with vendors.

RPS does not have a policy to negotiate early payment discounts with vendors. Accordingly, they could not identify which vendors offered discounts, so auditors could not easily quantify the lost opportunity for savings. However, negotiating and earning early payment discounts could result in substantial cost savings.

Recommendations:

- 86) Require the inclusion of early payment discounts as a standard procedure in the procurement negotiation process.**
- 87) Establish a set of policies and procedures to ensure taking advantage of early payment discounts offered by vendors.**
- 88) Track savings from early payment discounts and use it as a performance measure.**

Technology purchases

Even though technology-related purchases are complex and may require technical knowledge. However, RPS does not have a written policy that governs IT-related purchases. Without proper guidance, the end-users could purchase non-standard IT-related equipment. In addition, purchasing non-standard IT-related equipment could cause other vulnerabilities and risks such as:

- Inappropriate software installed on workstations, servers and operating systems, therefore causing viruses to the overall network;
- System security may be compromised allowing unauthorized use of the sensitive data;
- IT system components may not function effectively as designed due to incompatible equipment; and
- All assets may not be identified and recorded in RPS' official records.

In addition, the end-user could use the vendor of his/her choice creating the potential for favoritism and corruption.

Recommendation:

- 89) Develop purchasing guidelines for IT-related purchases and provide training to the end users.**

Computer System Issues

Background

Richmond Public Schools uses the Financial Management System (FMS) application for their Procurement and Accounts Payable automated processing. The FMS application is located on the Comprehensive Information Management System (CIMS) platform which uses the AS/400 (IBM iSeries) as their operating system. The IBM 400 operating system has been in existence for more than 25 years and is still considered a very stable platform. The CIMS/FMS application is a modified double-entry accrual accounting system designed for governmental accounting organizations. The CIMS/FMS application consists of six (6) smaller subsystems or modules that work together to process and share information. The CIMS/FMS modules used for Purchasing and Accounts Payables transactions are:

- General Ledger
- Purchasing
- Receiving
- Accounts Payable
- Cash Disbursements
- Cash Receipts
- Warehouse Requisition

Age and most current system updates

The CIMS/FMS application was installed in 1991 (17 years old) and the last system upgrade occurred on January 5, 2008. There was an annual maintenance agreement purchased with the system where various upgrades to the CIMS/FMS system are performed annually. Since 1991, there have been approximately 62 upgrades to the CIMS/FMS application.

Pursuant to industry best practices, operating systems and applications should be reviewed and updated to reflect the latest security and processing patch levels. According to FISCAM (Federal Information Systems Controls Audit Manual), current application systems and information should be routinely validated as being accurate, up-to-date, and working as intended for networks, operating systems, and infrastructure applications. Also, an effective patch management process should be documented and implemented, including identification of systems and applications affected by recently announced software vulnerabilities. Software should be updated to protect against known vulnerabilities and have the latest versions of software patches.

RPS has an old financial system that needs to be evaluated for adequacy

RPS has not reviewed or evaluated their CIMS/FMS application to determine if the system is efficiently working for the intended purposes. The system is at least 17 years old and several new and more efficient products have been introduced in the government financial systems market. Even with the numerous system upgrades, based on the age of the CIMS/FMS application, RPS management and the Department of Information Technology need to perform a business case analysis to assess the feasibility of purchasing upgraded versions of the Procurement and AP modules with enhanced functionality.

Based on customer feedback, the CIMS/FMS application has a consistent look, feel, and keystroke usage throughout all FMS modules. The purchase order, accounts receivable, accounts payable and vendor databases are integrally related. CIMS/FMS is based on building tables of data which populate the data to related processing screens.

*Pros and
Cons*

During the auditor's inquiry, the following pros and cons were noted:

Pros:

1. Runs on an AS/400 operating system; which is a robust and dependable platform with very minimal downtime.
2. Easy to train the end-users to establish experience and proficiency.
3. CIMS/FMS is user friendly, with easy access to reports, document processing (entire purchase order process), access to vendor information, and easy information retrieval.
4. Is customizable (if necessary), stable, sound, simple and easy to use.
5. Is manageable in a centralized environment.
6. Allows for speed in procurement using the Small Purchase Order process.
7. Allows for system modifications, real time processing and integrated modules.

Cons:

1. Green Screen has an antiquated look; not web-based.
2. Only able to enter one line item on a Blanket Purchase Order.
3. A system control is needed to distinguish between entering a purchase order and a purchase order that is associated with a contract.
4. The system has very few time and date controls on the vendor master file for set-up or changes in vendor information. Changes to the date field do not reflect the date of the modification.

In addition, the City of Richmond is assessing the possibility of replacing its financial system with a suitable new product. There is an opportunity to join the City of Richmond in the purchase of the system and realize cost savings.

***Automating
the manual
process***

Currently, the Departmental Invoices are internally generated documents that are used in place of invoices for making payments such as Retirement System payments. This process is manual and has very weak controls. It appears that a separate data entry screen for Departmental Invoice information input is necessary to assure segregation of duties and verification of appropriate authorization. An Accounts Payable clerk can review the information entered and documentation attached to the approved copy of a Departmental Invoice to make payment. By restricting access to the Departmental Invoices input screen to authorized end-users only, a proper segregation of duties can be assured.

***Some system
features are
not being
used***

The AS/400 CIMS/FMS application supports an audit trail or logging feature that tracks the history of a transaction for a certain period of time. The audit trail or logging entails the writing of specific system and/or application events to a data store which is usually a flat file. Using this feature is very important as the identity of the employee making changes to purchasing and AP transactions is tracked. The audit trail feature was not turned on because the prior RPS DIT management determined that there would be insufficient storage resources to track this information. In this case, if the records are manipulated, the changes will not be detected. In addition, the identity of the employee making adjustments will not be determined. With

Audit trail

deficiencies described throughout this report, the absent audit trail feature further weakens the overall system controls.

***Workflow
and
electronic
approval***

Workflow and electronic approval features were not purchased with the AS/400 CIMS/FMS application. These features are designed to significantly improve overall processing efficiency by providing the ability to manage and monitor work and to eliminate time-consuming manual document routing, review and approval. Automatic workflow routing and e-mail notification features help to simplify as well as to expedite manual document processing.

The workflow application supports re-engineering of common manual user/process flows and further enables a paperless work environment. The electronic approvals are critical for a three-way match process (described earlier) to work. This process is critical for efficiently processing vendor payments.

System training

At RPS, several resources for training on the CIMS/FMS application and related processes are available for end-users. Auditors received copies of three manuals for review:

- Richmond Public Schools Financial Procedures Manual
- Comprehensive Accounts Payable and Purchasing Payment Processing Class Manual
- On-Line CIMS Financial Management System User's Guide

Training is provided by the RPS Technical Trainer for CIMS/FMS Purchasing and Accounts Payable processing. She has several years experience as a professional trainer. The Accounts Payable Supervisor assists with the training initiatives for the Accounts Payable training

and is considered the product user-expert for this training module. However, there is no purchasing product user-expert assistance provided. Training is not mandatory; it is attended on a voluntary basis. During discussions with the RPS Technical Trainer, it was noted that some sections of the training material were outdated and currently not used, and informal on-the-job training is taught by more experienced staff.

***System
training
manuals need
to be updated***

Given that the training manuals are outdated and training is not mandatory, the associated risks are:

- Poor training which is irrelevant, costly and increases risk of errors.
- Key updated processes and system components (systems applications, infrastructure, data, information, etc.) required for processing could be overlooked.
- Training objectives will not be realized when Purchasing Department staff do not assist the trainer.

According to international information system audit standards, COBIT (Control Objectives for Information and Related Technology), organizations should define and communicate how all policies, plans and procedures that drive IT processes are documented, reviewed, maintained, approved, stored, communicated and used for end-user training. Responsibilities for each of these activities should be assigned and, at appropriate times, reviewed to ensure that they are executed correctly. Ensure that the policies, plans, and procedures are accessible, current and communicated.

System controls

Key system application access controls for the AS/400 CIMS/FMS application are based on individual end-user security profiles that allow various levels of system application access. End-users have system application access based on the following categories:

- Small Purchase Orders - under \$500
- Unapproved Purchase Orders - over \$500
- Blanket Purchase Orders
- Receivers for Small, Unapproved and Blanket Purchase Orders
- AP Accountants
- Change Orders
- Invoices
- Vendor Master File

The table below depicts information on the various security profiles that were set-up for CIMS/FMS that result in inadequate segregation of duties:

Inadequate segregation of duties could result in potential abuse

User Access	Number of Users
Purchase Order and Receiver	296
Purchase Order, Receiver & Invoices	15
AP Accountants & Invoices	1
Purchase Order, Receiver, Change Orders, & AP Accountants	1
Purchase Order, Receiver, Vendor Master File, AP Accountants & Invoices	1
Purchase Order, Receiver & Change Orders	3
Vendor Master File, AP Accountants & Invoices	4
Purchase Order, Receiver & AP Accountants	1

Assigning incompatible privileges to employees could result in misuse. Proper segregation of duties will prevent any employees from having

unchecked control over a transaction and is desirable for maintaining adequate controls.

***Access
privilege for
former
employees***

Deleting access privileges of employees that have not logged onto the system for an extended period of time or upon termination of employment is a generally accepted practice. RPS does not have a policy or procedure for accomplishing this task. A sample report requested from the Department of Information Technology indicated that the terminated employees' system access security profiles are not being removed a timely manner. Auditors further requested a report that would list all the previous employees who should have been deleted from the system. This information was not submitted to the auditors. However, there is a significant risk in either not removing unneeded security profiles or not removing them in a timely manner from the system. Unauthorized access could result in compromising system data and information.

***RPS needs to
eliminate
system
privileges upon
termination of
the employment
of the user***

The AS/400 CIMS application uses input edit controls to manage and control the processing activities of their Financial Management, Warehouse Inventory and Fixed Asset Inventory systems. Based on auditor's review of various system settings, the following areas were identified that require improvements such as:

***Input and
edit controls***

- The system has very few time and date controls on the vendor master file for set-up or editing.
- The purchase order (PO) date captured in the system did not always reflect the date the PO was actually generated. In some cases, the date reflected the last action taken on a particular PO (i.e. closing and canceling). Consequently, the transactions reviewed during the audit include purchases outside the audit

scope. In other cases, the system date reflected the date the PO was entered regardless of the last action taken. According to the Senior Buyer and the Logistics Supervisor, the original PO date should remain intact regardless of the actions taken on the purchase orders. The system has the capability to prevent the original purchase order date from being changed; however, this control has not been implemented.

- No edit control exists for the purchase orders that exceed encumbered dollar thresholds. This situation will allow the end users to process purchase orders over the encumbered amount can lead to exceeding contracted amount.

Recommendations:

- 90) Perform an evaluation of the CIMS/FMS application to determine adequacy for the intended purpose and efficiency in use of system resources.**
- 91) If a need for system replacement is determined, collaborate with the City of Richmond in purchasing a new system.**
- 92) Assess the feasibility of automating the Departmental Invoice process for authorized end-users.**
- 93) Evaluate the feasibility of workflow and electronic approval features in CIMS/FMS.**
- 94) Implement the audit trail feature.**
- 95) Provide mandatory staff training on the CIMS/FMS purchasing and AP modules using a team of professional trainers and product end-user experts from both departments.**
- 96) Review and update all training manuals to reflect system application enhancements, current processing needs and business objectives.**

- 97) Work responsibilities should be segregated so that one individual does not control all critical stages of a process.**
- 98) Review all CIMS/FMS end-user security profiles and make a determination to re-align them based on the principles of segregation of duties.**
- 99) Promptly terminate access privileges and remove security profiles of all terminated employees and end-users that have not logged into the CIMS/FMS system for an extended period.**
- 100) Configure the system to assign a fixed purchase order date which cannot be altered or overridden.**
- 101) Implement controls that will prevent expenditure limits from being exceeded.**
- 102) Implement a control that will allow the date field to reflect the date of the modification when making changes to the vendor master file.**