



Richmond City Council

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OFFICE OF THE CITY AUDITOR

REPORT # 2010-04

Audit
of the

Citywide Payroll Process

November 2009

OFFICIAL GOVERNMENT REPORT

Richmond City Council

OFFICE OF THE CITY AUDITOR

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*Committed to increasing government efficiency, effectiveness,
and accountability on behalf of the Citizens of Richmond.*

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City of Richmond
City Auditor

Executive Summary

November 13, 2009

The Honorable Members of Richmond City Council
The Richmond City Audit Committee
Mr. Byron C. Marshall, Chief Administrative Officer

Subject: Audit of the Citywide Payroll Process

The City Auditor's Office has completed an operational audit of the City's payroll process. The scope of this audit encompassed internal controls, system functionality, and the efficiency and effectiveness of payroll processes. The period examined was for the 15 months ended September 30, 2008. The audit was conducted in accordance with Generally Accepted Government Auditing Standards.

Objectives

The objectives of the audit were to evaluate whether:

- Internal controls and policies and procedures governing the City's payroll processes provide reasonable assurance that payroll balances in the general ledger are stated accurately, timely and in the proper period;

- Assess the adequacy and functionality of the current payroll system and related IT controls; and
- Determine that current payroll practices provide both an efficient and effective use of public resources.

Background

The City of Richmond's Payroll Division utilizes a decentralized payroll process. The Division handles payroll for approximately 5,000 City employees. During the period from FY2004 through FY2008, total actual salaries increased from \$194.3 million to \$228.2 million, an increase of 17.5% over five years. The most significant growth in staff size occurred in Juvenile Justice, Public Works and the Police Department while staffing levels increased nominally or declined for other City agencies.

Salient Findings

- The City employees were generally paid timely and accurately using the information available to the Finance Department. An examination of selected pay checks revealed accurate computation of gross pay, deductions and net pay.
- The payroll process is critical for the operation of the City. The cost of payroll represents a very large expenditure for the City. Significant control weaknesses would cause sizable risk for the City's operations. The City's decentralized process and computerized payroll system limitations make it more probable that this risk may materialize. Addressing these risks is very important to maintain accountability over these costs. For this purpose, the City must have adequate internal controls to assure that:
 - Employees are paid for the actual time worked in accordance with appropriate statutes;
 - The City complies with the Fair Labor Standards Act (FLSA) and the Internal Revenue Code; and
 - Productivity of employees is measured and managed.

Overall, this audit concludes that internal controls over the Citywide payroll process need improvement. As discussed in the remainder of the report, the City:

- Needs to improve internal controls over collection of data and recordkeeping;
 - Must create better documentation related to compliance with FLSA; and
 - Must have better information to manage employee productivity.
- The auditors noted that the City does not have formal, comprehensive policies or procedures pertaining to monitoring for compliance with FLSA guidelines. Keeping manual, secondary recordkeeping for leave and compensatory time earned does not automatically trigger payments in accordance with FLSA. Therefore, an independent verification is required for this purpose.
 - The current payroll process and the City's antiquated system that force ancillary manual recordkeeping do not allow the payroll technicians to successfully enter real-time payroll data within the time constraints imposed. Payroll time is entered prior to the end of the payroll period. This situation has resulted in wages being paid using estimated hours for a portion of the pay period rather than actual time worked for hourly employees. With better technology, other governments with similar time constraints are able to process payroll more efficiently without compromising the accuracy of the data.
 - The computer system is cumbersome and outdated. The system limitations lead to inefficiencies and control weaknesses. The City pays an annual maintenance fee of approximately \$195,000 to the vendor. It is unclear whether the value of the limited updates and system fixes continues to warrant the level of expenditure required.
 - The TEMS time and attendance module has not been supported by the vendor since 2000. The TEMS time and attendance module and the overall TEMS payroll application have been stable applications. Employees have received their paychecks with regularity over a ten-year span of time; however, due to lack of vendor support, there is an inherent risk that any existing vulnerabilities that are discovered with the software will not be addressed by the vendor.

- Not all departments require their hourly personnel to record their time on timesheets. Specifically, the Finance Department assumes time worked by hourly employees to be 80 hours per pay period unless adjustments are made. Auditors were informed that supervisors do submit a signed authorization for overtime hours. However, without timesheets or other supporting documentation, there is no assurance that hourly employees' pay is based on actual time worked or that overtime pay at a time and a half hourly rate is justified.
- Under ordinary circumstances, an employee is expected to be paid in exchange for working a productive, eight-hour day. When the employer's ability to adequately measure and record time is impaired or does not exist, it may not be possible to effectively manage the work force and verify the appropriateness of payroll expenses. The real cost of lost productivity time may be significant. In the City's \$228 million payroll, lost productivity could cost the City several million dollars due to the City's inability to verify the accuracy and accountability of the time worked by hourly employees. The amount of the loss cannot be quantified as the relevant data is not available.
- Presently, the replacement of the current payroll system is proposed along with the implementation of a new Enterprise-wide Resource Planning (ERP) system. However, due to budget constraints, this system may not be implemented in the near future. The replacement of TEMS was planned along with this system implementation.

In this situation, the City has the following options:

- Continue to use TEMS with the numerous deficiencies identified in this report until the system is finally replaced;
- Purchase a system capable of interfacing with a modern ERP system;
- Outsource payroll processing service; or
- Use some combination of these options.

The City Auditor's Office appreciates the cooperation of all departments, the Finance Payroll Division, the Department of Human Resources, and the Department of Information Technology. A written response from management is included in this report. Please contact the City Auditor if you have a question or comments related to this report.

A handwritten signature in black ink, appearing to read "Umesh Dalal", written in a cursive style.

Umesh Dalal, CPA, CIA, CIG
City Auditor

COMPREHENSIVE LIST OF RECOMMENDATIONS

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1	Encrypt TEMS users' passwords.	14
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3	Explore the automation of the Payroll Totals Report and the Payroll Deduction and Register Report reconciliation.	16
4	Provide Citywide training to ensure timely communication and notice of project code changes to prevent delays in payroll processing.	16
5	Eliminate paper reports wherever possible with on-line or electronic versions.	17
6	Establish policies and guidelines for the security and safeguarding of reports with sensitive employee data, such as social security numbers.	17
7	Evaluate the feasibility of available options as a stop-gap measure prior to the implementation of an ERP system.	26
8	Consider installation of an automated timekeeping system Citywide for all hourly employees when evaluating available options, i.e., outsourcing, new payroll system, etc.	26
9	Assign higher priority to replacing the TEMS system during ERP system implementation.	26
10	Eliminate the use of paper leave records as an option to track leave.	26
11	Implement electronic approval procedures to eliminate the use of redundant data entry in the leave process, hiring process, termination process and/or employee record changes. Forms which could be automated include: <ul style="list-style-type: none">• Application for Leave• Personnel Action Form (Form 4)• Supplemental Form 1 (HUF Form)• Position Control (HNPU1 Form)• Direct Deposit Enrollment/Change Form• Internal Name/Address Form (HID01 Form)	26
12	Implement an electronic termination procedure that streamlines the process and informs all necessary parties. Ideally, an automated message should be sent to all concerned parties upon termination (e.g., HR, DIT, Badge Team, etc.)	29
13	Implement a checklist or other control to ensure that all City equipment or assets are returned as part of the termination process (e.g., badges, laptop computers, blackberries, etc.)	29
14	Implement procedures to ensure that all City employees and all constitutional employees who are paid through the City's payroll system are issued an ID badge whose image is filed centrally within Human Resources.	30
15	Periodically compare the electronic payroll files against the ID badge files to ensure that all City employees have been issued ID badges and that all badges issued to terminated employees have been collected and deactivated.	30
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17	Implement a methodology that identifies and tracks efficiency measures and goals and verifies the achievement of current goals.	33
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19	Hold constitutional agencies paid by the City's payroll to the same standards as all other City departments.	34
20	Develop guidelines for a periodic review and update of payroll policies and procedures.	35
21	Establish formal policies and procedures as well as "desktop procedures" for all payroll control activities, including review of audit logs, processing controls, etc.	35
22	Develop appropriate policies and procedures that will ensure compliance with IRS guidelines and accurate social security records.	35

23	Revise the departmental process and train staff to require the use of the one-time payment option when processing bonuses or other payments intended for one-time only use.	36
24	Evaluate the feasibility of mandating all City employees to use direct deposit or the direct pay card service.	38
25	Develop a website for electronic access that will eliminate paper remittance advices and allow City employees to review payroll-related information.	38
26	Analyze the necessity of superusers' privileges and remove access privileges that are determined to be unnecessary for them to perform their duties.	40
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28	Enforce the City policy regarding the revocation and deletion of logon IDs not used for 60 days or more.	40
29	Review TEMS functionality and activate or develop processing controls that provide reasonable assurance of the completeness and accuracy of the information processed.	42
30	Develop a formal contingency plan to address the loss of vendor support.	43

Introduction, Objectives and Methodology

Introduction and Scope

The City Auditor's Office has completed an operational audit of the City's payroll function. The audit period covered the 15 months ended September 30, 2008. The audit was conducted in accordance with Generally Accepted Government Auditing Standards.

Management Responsibility

The management of the City of Richmond is responsible for maintaining relevant records and maintaining a system of internal accounting and management controls. In fulfilling this responsibility, management is required to assess the expected benefits and related costs of the control procedures.

Objectives and Methodology

The objectives of the audit were to:

- Verify the existence and adequacy of internal controls in the payroll process and information system;
- Assess the adequacy and functionality of the current payroll system; and
- Determine that current payroll practices are both efficient and effective.

Auditors employed the following methodologies to complete this audit:

- Interviewed management and staff;
- Surveyed management and staff using questionnaires;
- Reviewed and evaluated relevant policies and procedures;
- Reviewed financial data, supporting documents, and data flows;

- Observed and tested payroll processes;
- Observed and tested various IT system controls;
- Reviewed prior internal payroll audit reports, and consultant reports;
- Examined and evaluated industry best practices;
- Performed benchmarking surveys with six surrounding localities (Hampton, Chesapeake, Norfolk, Virginia Beach, Henrico County and Chesterfield County); and
- Conducted other appropriate tests as deemed necessary.

***Background
and Purpose***

The City of Richmond's Payroll Division processes payroll for approximately 5,000 employees for a budgeted amount of \$240 million in FY2008.

In the Finance Department, the Payroll Division reports to an Assistant Controller who, in turn, reports to the Acting Director of Finance. Presently, the Payroll Division consists of seven full-time employees including one Payroll Manager. The Payroll Division in Finance is responsible for:

- the timely and accurate processing of the City of Richmond's payroll;
- data entry of payroll information into the Total Employment Management System (TEMS);
- updating, reviewing and reconciling payroll deductions;
- setting up direct deposits, generating and distributing checks and wire transfers;
- handling all payroll accounting-related activities to include the reconciliation of payroll to the general ledger, payments

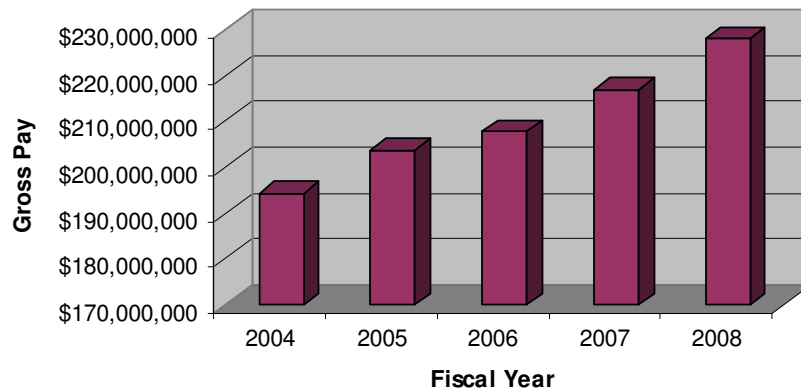
to third parties, payment of state and federal taxes and compliance reporting;

- researching tax issues to determine appropriate handling;
- providing customer service to City employees and outside agencies to resolve any questions or issues that may arise concerning payroll-related matters; and
- ensuring compliance with City payroll policies and procedures.

***Five-Year
Trend
Analysis of
Gross Pay***

As illustrated in the charts below, during the period from FY2004 through FY2008, total actual salaries increased from \$194.3 million to \$228.2 million, an increase of 17.5% over five years.

Five Year Gross Pay Trend Analysis



Source: City's Advantage Financial System

The most significant growth in staff size occurred in Juvenile Justice, Public Works and the Police Department while staffing levels increased nominally or declined as depicted below for other City agencies:

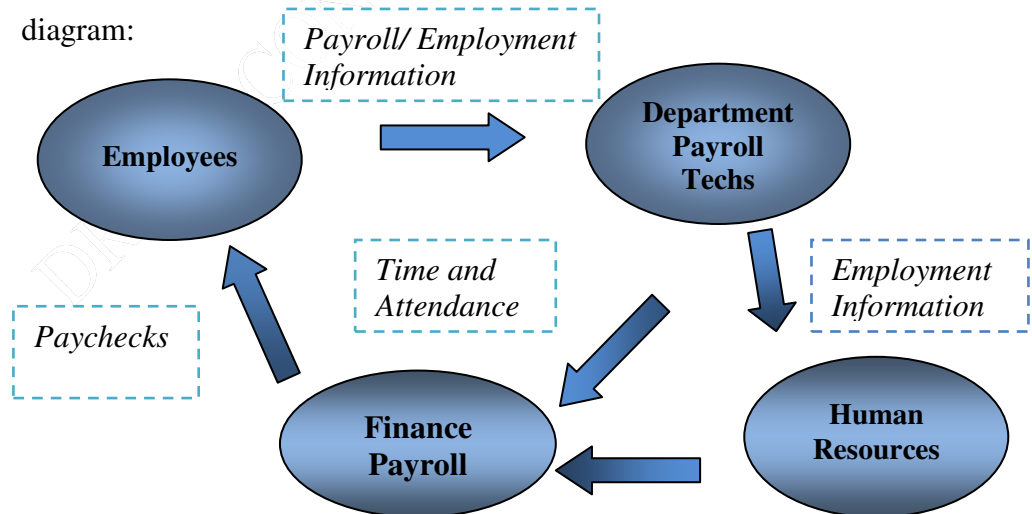
FTEs	2004	2008	Increase/ (Decrease)	% Change
Juvenile Justice	99	154	55	55.8%
Social Services	480	504	24	5.1%
Public Works	504	638	134	26.5%
Police	906	1020	114	12.5%
Fire & EMS	425	427	2	0.5%
Public Utilities	697	691	(6)	(0.9%)
Other agencies	1723	1634	(89)	(5.1%)
Total	4,834	5,068	234	4.8%

Source: City of Richmond Adopted Biennial Plans

Overall, City staffing increased by less than 5% in five years. This does not appear to be an excessive increase.

Payroll Process

The City's payroll process can be demonstrated by the following diagram:

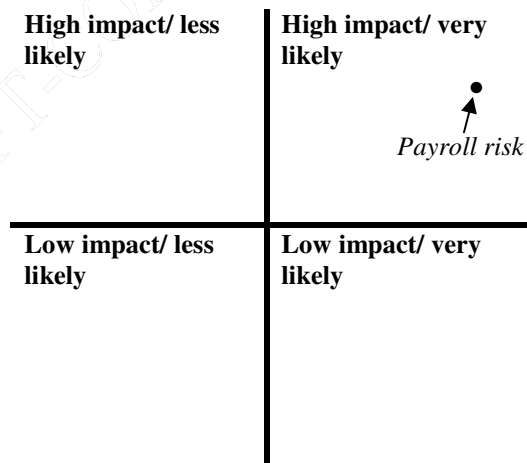


At the agency level, payroll technicians perform payroll-related tasks such as creating and disseminating information related to new

Payroll Technicians are the primary line of defense against errors and irregularities

hires and terminations, entering time and attendance data, tracking leave information, and editing payroll information prior to the release of employee paychecks. There are approximately 97 agency employees who spend at least part of their duties as payroll technicians. The importance of the role of these technicians in the payroll process cannot be ignored. These employees are the primary line of defense against errors and irregularities. Since the payroll process is decentralized, any errors or abuses occurring at this level will be difficult to detect and correct in a timely manner. The payroll process is critical for the operation of any organization including the City. As previously discussed, the cost of payroll represents a very sizable amount of expenditure for the City. Therefore, control weaknesses may have a significant impact on the City's operations. Also, the decentralized process makes it more probable that this risk may materialize. This assessment is illustrated on a risk matrix as follows:

Risk Matrix



Addressing these risks is very important to maintain accountability over these costs. For this purpose, the City must have adequate internal controls to assure that:

- Employees are paid for the actual time worked in accordance with appropriate statutes;
- The City complies with the Fair Labor Standards Act (FLSA) and the Internal Revenue Code ; and
- Productivity of employees is measured and managed.

Internal Controls

The overall conclusion of this audit is that internal controls over the payroll process need improvement. As discussed in the remainder of the report, the City:

- Needs to improve internal controls over collection of data and recordkeeping;
- Must create better documentation related to compliance with FLSA; and
- Must have better information to manage employee productivity.

The integrity of the payroll process depends upon the quality of information fed in the system and the adequacy of internal controls

It must be noted that City employees were generally paid timely and accurately using the information available to the Finance Department. An examination of selected pay checks revealed accurate computation of gross pay, deductions and net pay.

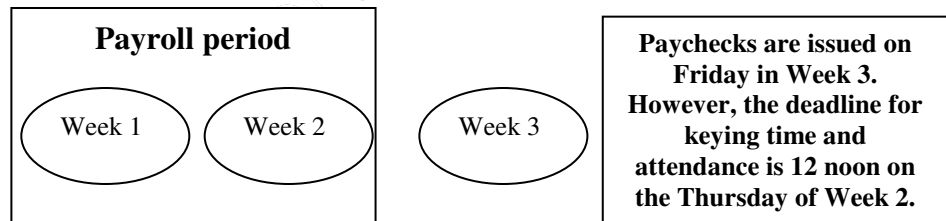
The integrity of the process depends upon the quality of information entered into the payroll process, the soundness of controls in the departmental procedures, and the adequacy of the automated system used for the purpose. Due to the decentralized

operations, the Payroll Division in the Finance Department does not have control over data input in the system. System limitations discussed subsequently in this report further highlight the need for proper checks and balances in the process. Under the circumstances, the Finance Department is performing effectively in paying wages to the City's workforce in a timely manner. However, there is room for improvement in the City's payroll processing.

The remaining report includes a discussion of the issues that supports the above conclusions. Of the several issues identified, many of them are beyond control of the Payroll Division.

Time Constraints

The City processes payroll on a bi-weekly basis. The payroll checks are issued in the week subsequent to the end of the payroll period as shown in the following diagram:



Due to the early TEMS cutoff, the above situation indicates that departments do not have the opportunity to:

- Appropriately approve time sheets reflecting actual hours worked, and
- Enter real-time data into the system through the end of the pay period.

Auditors found that:

The Departments of Public Works has about 600 employees. The departmental Payroll Supervisor estimated that it takes about ten days to post attendance data, enter leave and key in time. The Public Utilities Department has about 700 employees. Its payroll technicians require between 48 and 60 hours to key in time, enter leave and post attendance data. Other large departments such as the Department of Social Services, which has about 500 employees, face similar time constraints.

Capturing and recording of time is a labor intensive and inefficient process. The auditors learned that, in some of the larger agencies, timesheets must be manually reviewed by supervisory personnel and transported by vehicle to a central location for additional review. For example, in one unit within the Department of Public Works (DPW), employees in the field transport their timesheets to another DPW location for review and then the timesheets are transported by vehicle to DPW payroll technicians at City Hall for data entry. Also, within the Public Works Department, auditors noted an instance in which timesheets are rewritten into formats that are "user-friendly" to the payroll technicians responsible for entering the information into TEMS.

Almost half (46%) of the agency payroll technicians, who responded to the auditors' survey, noted that payroll takes more than a day to process each pay period; one respondent noted that payroll takes about 70 hours out of an 80 hour pay period to process.

Payroll time is entered even though the pay period has not ended

To accommodate the TEMS cut-off time and attendance data entry deadline, payroll technicians indicate that the keying of time has to commence during the beginning of the second week of the current pay period even though the pay period has not ended. This means that time worked by hourly employees in the second week of a pay period essentially represents an educated guess of anticipated hours to be worked. This practice negates the purpose of supervisory review of timesheets which essentially verifies the accuracy of hours worked. It is not clear if all the departments make subsequent adjustments to employee hours if employees do not work the number of hours estimated during the payroll period. Obviously, this situation increases the risk that employees may be paid for hours not worked.

Time worked by hourly employees in the second week of a pay period essentially represents an educated guess

Payroll technicians in the larger agencies such as the Department of Public Utilities and Public Works with many hourly employees do not attempt to key in overtime incurred during the second week of the pay period due to the time constraints. Overtime for the second week of a pay period is deferred and reported in the subsequent pay period. This means that overtime recorded in TEMS is not always recorded when actually incurred. Any management analysis of overtime will be based on misleading information. In this situation, evaluation of employee productivity may be difficult.

The Payroll Division manager notes that the deadline for TEMS processing cannot be pushed back in order to allow for more accurate time, leave, and overtime entry during the second week of

the payroll cycle without jeopardizing the editing and validation of data or the Automatic Clearing House (ACH) deadline that must be met in order to pay employees through direct deposit by payday.

Audit inquiries found that the following governments follow a bi-weekly schedule as does the City of Richmond:

Locality	FTEs	Pay Week	
		Time Input By	Checks Issued
Wilmington, DE	2,200	Wednesday	Friday
Maricopa County, AZ	14,500	Tuesday	Friday
City of Tallahassee, FL	3,976	Monday	Friday
Palm Beach County, FL	7,150	Monday	Friday

Source: Association of Local Government Auditors (ALGA)

With better technology, other governments with similar time constraints are able to process payroll more efficiently

These governments are able to process payroll in a timely manner without compromising the accuracy of the data by using state of the art computer systems and automated data input mechanisms.

Based on the foregoing discussion, it is apparent that if data input and verification can be completed soon after the end of the payroll period, many of the above issues will be resolved.

Audit research identified that the use of modern technology such as bar-coded time clocks, swipe cards, biometric devices, and web-based timekeeping, can accurately and objectively capture hours

The cost effectiveness of the current system accommodating the new technology is unknown

worked. These technologies will reduce payroll processing time in departments and improve accountability over labor costs. In addition, they can assist the City in compliance with the Fair Labor Standards Act (FLSA). According to DIT, the current payroll system is able to accommodate the new technology. The cost effectiveness of this option is unknown.

In general, the above issues identified in this report stem from an overwhelming amount of manual work as a result of an inadequate computer system. A better computer system and automating processes would not only improve the efficiency but enhance accountability over this major expenditure.

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Computer System Limitations

Computer System

The City of Richmond acquired the Total Employment Management System (TEMS) application in 1994; however it was not installed until 1999. TEMS is a mainframe based application built on IBM's DB2 database architecture.

The computer system is cumbersome and outdated

The following are some of the TEMS limitations:

- In a DOS environment, users type in text commands to key in data and perform tasks. The system is inherently cumbersome because TEMS screens often require special command language or menu options that require manual keying. Users must navigate through many screens in order to perform the tasks. A payroll technician may have to type more than 20 characters to execute a command in the time and attendance module. Entering exact characters for the commands is error-prone even for experienced users. If the payroll technician makes an error, then the command has to be re-entered. This is a time-consuming process which results in lower productivity.
- For new hires, the system does not accurately track sick and vacation leave for initial pay periods until it is adjusted after a quarterly reconciliation. This situation occurs because the cutoff date for loading new hire information into TEMS is prior to the hire date. Consequently, manual calculations could lead to errors and/or omissions.
- TEMS does not allow users to run report queries in the time and attendance module or to generate custom online reports. This

The system limitations lead to inefficiencies and control weaknesses

System passwords are not encrypted resulting in a potential for abuse

means that department managers cannot easily obtain ad hoc reports to manage overtime, absenteeism, etc. in order to measure and monitor employee productivity.

- The Federal Information System Controls Audit Manual (FISCAM) recommends encryption for the password file to enhance security. During testing, we observed that the TEMS Administrator, who is also a superuser, is able to access unencrypted passwords of all TEMS users. This means that potential misuse of the system or alteration of data can be performed by using any payroll technician's password without the technician's knowledge.
- The City's version of TEMS does not require strong passwords. Initially, we also noted the City did not have a strong password policy for accessing TEMS. During this audit, the Finance Department responded to these observations and promulgated formal password policies and procedures to address these weaknesses. However, after the issuance of these policies, the auditors tested the new procedures and determined that TEMS will still accept certain passwords which do not meet the requirements set out in the policy or the definition of a strong password. In the present environment where unauthorized access to systems could represent a major threat to the data and system security, strong passwords are essential to prevent external and internal attacks. FISCAM recommends strong passwords of at least eight characters in length containing alphanumeric or non-alphanumeric characters.
- Currently, the vendor does not offer system upgrades or enhancements to TEMS and no longer provides technical

Currently, the vendor does not offer system support or enhancements

support for the Time and Attendance module. The vendor does provide periodic updates such as tax changes, contractual obligations for vendor support and existing system fixes. The City pays an annual maintenance fee of approximately \$195,000. It is unclear that the value of the limited updates and system fixes continues to warrant the level of expenditure required.

- There is no linking of screens with the same data fields; therefore, data may have to be entered more than once.
- Four out of 24 payroll technicians interviewed during the audit indicated that TEMS can be slow, freeze or shut down during processing.

Recommendations:

- 1. Encrypt TEMS users' passwords.***
- 2. Revise the password parameters in TEMS to correspond with stated policies and reject weak passwords.***

Labor Intensive Processes

The TEMS system is a "stand-alone" system. A TEMS validation table creates a one-to-one link between TEMS and the City's financial system (Advantage); however, not all information in TEMS passes automatically into Advantage. Maintenance of the interface between TEMS and Advantage requires constant coordination and adjustments between the user departments, Payroll, and Budget personnel. Maintenance is a labor intensive process which is described below:

- Reconciliation between TEMS and Advantage must be performed to resolve all discrepant items at the close of every pay period. Discrepancies are followed up by the Payroll

Accountant through emails and phone calls until all reconciling items are successfully received into Advantage. Typically, manual journal entries must be prepared to ensure that all TEMS information is recorded into Advantage.

- As part of the biweekly reconciliation process, a Payroll Accountant performs a reconciliation of payroll transactions to the general ledger which includes summarizing and comparing data from various TEMS reports to the Advantage Financial System general ledger. Cost information from the Payroll Totals Report and Payroll and Deduction Register Report are manually input into an Excel spreadsheet for comparison. Both reports are generated from the TEMS system; however, the manual effort and time required to perform this particular reconciliation diminishes its value.
- TEMS can distribute labor costs to various projects in accordance with staff time spent for these projects. City agencies must establish new project codes as needed. Payroll technicians manually enter these 14-digit labor distribution codes for each employee when posting employee time; therefore the codes must be approved and established in the TEMS validation table to be accepted into Advantage.

The system forces manual work and makes the process inefficient

Errors in establishing project codes may result in rejection of the codes. During the audit, the auditors observed one instance where the TEMS validation table did not accept 42 project codes used by departmental personnel. As a result, the time and attendance keying was delayed until the problem could be

resolved. Improved communication of project code additions can mitigate this risk.

Recommendations:

- 3. Explore the automation of the Payroll Totals Report and the Payroll Deduction and Register Report reconciliation.***
- 4. Provide Citywide training to ensure timely communication and notice of project code changes to prevent delays in payroll processing.***

System Reports

The TEMS system has a very limited ability to provide electronic reporting. Presently, TEMS generates paper reports during “edit” and the “update” portion of a pay period. The payroll technicians must pick up these reports from the Payroll Division. Approximately five reports are routinely used by the payroll technicians for editing purposes. An additional eighteen reports are distributed after the update process is completed.

TEMS has very limited ability to provide electronic reports

During the audit, the auditors observed that in one of the larger agencies, at least eight different reports were distributed that listed employee names and their social security numbers. This situation presents two problems. First, this obsolete method of distributing information is slow, inefficient, and expensive. Second, there are no guidelines available for physical security of these reports. Inconsistent physical security of these reports could increase vulnerability of sensitive employee information for misuse such as identity theft.

Recently, the City has created a unique employee number to replace the use of the Social Security number as the individual's

identification number. The new number appears on the paper reports wherever the employee number is posted. However, the social security number continues to print on the Payroll and Deduction Register used by Payroll Technicians.

The Payroll Division has informed the auditors that it has commenced a review of the TEMS reports distributed to City personnel back in September 2008. This paper reduction project was targeted for completion in the summer of 2009. However, as of this audit, only one report is currently distributed electronically to departments.

Recommendations:

- 5. Eliminate paper reports wherever possible with on-line or electronic versions.***
- 6. Establish policies and guidelines for the security and safeguarding of reports with sensitive employee data, such as social security numbers.***

Departmental Payroll Processing

Recording of Employee Time

Employees' time records are maintained and entered into the time and attendance module by departmental payroll technicians. Employees exempt from the Fair Labor Standards Act (FLSA) provisions (generally salaried) are paid on an "exception basis". They are assumed to work the full 80 hours in a pay period unless the payroll technician receives a manual leave record approved by the employee's supervisor to indicate that the employee was sick, on vacation, or some other form of approved leave. Generally, a manual timesheet is maintained and approved by the department supervisor to document the hours worked by hourly employees.

Manual Time Records

At the City of Richmond, time worked is captured entirely using manual recordkeeping, such as time sheets and paper leave slips. Strong internal controls must exist and be effective to prevent errors and misreporting due to inaccurate timekeeping. The use of manual timesheets to capture regular time and overtime exposes several control weaknesses as follows:

- In a test of timesheets for payroll technicians, the auditors noted the following for one payroll technician who worked in one of the smaller agencies:
 - The timesheets bore no evidence of review and approval during the period beginning December 31, 2007 and ending May 9, 2008. Consequently, it is unclear if a proper review and approval of time worked was performed.

- The auditor also observed additional timesheets in June and July 2008 where the hours on the timesheets were altered but there was no evidence to indicate who made the corrections or if the changes were approved.
- The total number of hours recorded on the timesheets in June and July 2008 did not agree with the recorded number of hours in TEMS. Since the number of hours recorded on the timesheets exceeded the number of hours recorded in TEMS, it is not clear whether the employee received payment for all hours worked.
- Not all departments require their hourly personnel to record their time on timesheets. Specifically, we noted that the Finance Department does not require timesheets for their hourly employees. Instead, time worked is assumed to be 80 hours unless adjustments are made. Auditors were informed that supervisors do submit a signed authorization for overtime hours. However, without timesheets or other supporting documentation, there is no assurance that hourly employees' pay is based on actual time worked or that overtime pay at a time and a half hourly rate is justified.
- Auditors found that the departments manually maintain vacation and sick leave as well as compensatory time records on a spreadsheet provided by Human Resources, apart from TEMS. This results in "dual" records that require the technicians to reconcile the leave balances shown in TEMS with their detailed spreadsheet records.
- TEMS does not automatically stop accruing for vacation and sick leave for employees who are on unpaid leave status. This

The Finance Department does not require timesheets for their hourly employees

limitation creates a “built-in” potential for error that requires the payroll technician to make manual adjustments during the quarterly payroll reconciliations and request that the Payroll Division make the appropriate adjustments until the problem is fixed. In the meantime, the erroneous TEMS information will continue to appear on the employee paystubs. Potentially, the employee could use the erroneously accrued leave. The Payroll Division noted that the cost of fixing the problem outweighed the benefit in anticipation of a new ERP system.

- Auditors found that the Department of Public Utilities actually maintained its leave records on paper and calculated all accruals and decrements by hand rather than using the time-saving features of an electronic spreadsheet, such as Excel. This practice significantly increases inefficiencies and the potential for errors.
- Paper forms, including timesheets, with manual approvals are subject to being delayed, lost or even fabricated. Files with sensitive employee information can be misappropriated or lost. The use of paper forms promotes inefficiency and increases the risk of delayed processing, unauthorized changes, lost documents, as well as spending an inordinate amount of time finding and transporting paper documents.
- TEMS does not have electronic approval capability to expedite or improve control over transactions such as employee hiring, changes to employee information, or the termination of employees. Approval is documented on paper forms which have to be manually transported to Human Resources and then to the Payroll Division for recording and processing.

*Departments
perform an
overwhelming
amount of
manual work*

- There is no control in place to verify if all approved leave requests have been received or recorded, as intended. As a result, departmental payroll technicians have no assurance that all leave slips are received.
- As part of the benchmarking process, auditors noted the following:
 - During a survey of six localities, all reported the use of some form of time-measuring devices for hourly employees, including electronic time cards, bar-coded clocks and biometric devices, and punch clocks. One locality noted that they were implementing a system that would entail a web-based timesheet for those with access to a computer.
 - Three out of the six localities use some form of document imaging. One entity prepares “pdf” versions of its monthly, quarterly and yearly reports but continues to print individual payroll.

***Impact of
Inadequate
Time Records***

A national survey estimated that American workers waste 20% of their work hours

In a nationwide survey¹ conducted in 2007, it was noted that American workers wasted 1.7 hours in an 8.5 hour day. The survey estimated several hundred-billion dollars wasted for which organizations received no apparent benefit. In this study, over 63% of employees admitted to wasting time at work. The leading time-wasting activities include personal Internet use (34.7%), socializing with coworkers (20.3%), and conducting personal business (17%). In a similar survey, which was conducted in 2005 and queried over 10,000 respondents, Virginia ranked as the 7th highest time-wasting

¹ Conducted by Salary.com

state contributing \$29 billion to this total. That same survey found the public sector (non-education) to be the second-ranked time-wasting industry which contributed an average of 2.4 hours of wasted time daily. This illustrates that measuring and managing employee time and productivity is of vital importance.

Lack of or impaired ability to measure and record time worked prevents effective management of work force productivity

Under ordinary circumstances, an employee is expected to be paid in exchange for working a productive, eight-hour day. When the employer's ability to adequately measure and record time is impaired or does not exist, it may not be possible to effectively manage the work force and verify the appropriateness of payroll expenses. The real cost of lost productivity time may be significant. In the City's \$228 million payroll, lost productivity could cost the City several million dollars due to the City's inability to verify the accuracy and accountability of the time worked by hourly employees. The amount of the loss cannot be quantified as the relevant data is not available.

Modern systems have functionalities in their payroll systems whereby an employee can prepare a leave slip electronically which is approved by a supervisor online. The electronically approved leave record updates the payroll system data thus eliminating processing by the Payroll technician. In addition, the employee's leave record is updated when the leave is requested and approved. This procedure also helps to save time in payroll processing after the payroll period. In addition, it assures that only authorized leave requests are processed and that all leave requests are received and entered in TEMS. Auditors found that TEMS does not have electronic leave approval capability that supervisors can use.

Risk

The TEMS time and attendance module has not been supported by the vendor since 2000. The TEMS time and attendance module and the overall TEMS payroll application have been stable applications; employees have received their paychecks with regularity over a ten-year span of time; however, due to lack of vendor support, there is an inherent risk that any existing vulnerabilities that are discovered with the software will not be addressed by the vendor. There is also a risk that the City may not have the required expertise to address ensuing problems or provide necessary maintenance. Currently, there are two DIT personnel who provide daily support of the TEMS application. Turnover in these positions may have an adverse impact on system maintenance. Finally, continued use of the older version of TEMS prevents the City of Richmond from benefiting from the value offered by any new enhancements.

***Available
Options***

Presently, the replacement of the current payroll system is proposed along with the implementation of a new Enterprise-wide Resource Planning (ERP) system. However, due to budget constraints, this system may not be implemented in the near future. The replacement of TEMS was planned along with this system implementation.

In this situation, the City has the following options:

- Continue to use TEMS with the numerous deficiencies identified in this report until the system is finally replaced;
- Purchase a system capable of interfacing with a modern ERP system;
- Use a vendor to provide this service; or
- Use some combination of these options.

Purchasing a stand-alone system is not consistent with the City's desire to implement an ERP solution where all the functional modules communicate with each other seamlessly. Continuing without any change until the ERP solution is implemented ought to provide payment to employees as long as the City recognizes the issues with this option and decides to tolerate the risk.

Payroll outsourcing may be one of the viable options to deal with shortcomings of the current process and system limitations

Outsourcing payroll processing is becoming more common in the industry. Maricopa County, Arizona is considering outsourcing its payroll processing even though they have an efficient process in-house supported by recent computer software.

The Gartner Group, a respectable information technology consulting group and publisher of several best practices, included the following key finding in their report published in June 2009:

“If they have not already done so, businesses with fewer than 10,000 employees (or globally dispersed large enterprises with more than 10,000 employees) should pursue payroll outsourcing for

quick cost reduction in the HR process; anticipate average cost savings of 20% to 30%.”

Conducting a payroll outsourcing feasibility study was beyond the scope of this audit. However, it presents a viable option. The outsourcing can eliminate many of the deficiencies identified in this report and allow the City to use automated data input technology with better controls. Outsourcing could also be a stop-gap measure until the City has the ability to acquire updated payroll software as a part of a future ERP solution implementation.

If the City implements a payroll module within an ERP system in the future, the features to be considered should include:

- Computerized time clocks that require an employee to swipe a unique identification card through a reader. The swipe results in the automatic storage of date and time and downloads this information to payroll software that calculates hours worked and also highlights any problems (missed card swipes). This feature significantly improves assurance that hourly employees are paid for hours worked;
- A web-based timekeeping system so that employees with Internet access can call up a screen that simulates a time card and enter their hours worked;
- The ability to allow employees who work off-site to punch their job start and stop times for payroll purposes;
- Automated vacation, leave, and compensatory time accrual and tracking that also accurately considers the impact of leave without pay on the accrual process;

- Provision for employee read-only access to vacation, compensatory, and sick leave records;
- Provision for flexibility to accurately record and report twelve-hour shifts or other allowable schedules;
- Provision for electronic approval of leave by supervisory personnel that is captured automatically by the payroll processing software; and
- Dashboard and ad hoc reports to analyze, monitor, and manage overtime, absenteeism and employee productivity.

Recommendations:

- 7. Evaluate the feasibility of available options as a stop-gap measure prior to the implementation of an ERP system.***
- 8. Consider installation of an automated timekeeping system Citywide for all hourly employees when evaluating available options, i.e., outsourcing, new payroll system, etc.***
- 9. Assign higher priority to replacing the TEMS system during ERP system implementation.***
- 10. Eliminate the use of paper leave records as an option to track leave.***
- 11. Implement electronic approval procedures to eliminate the use of redundant data entry in the leave process, hiring process, termination process and/or employee record changes. Forms which could be automated include:***
 - ***Application for Leave***
 - ***Personnel Action Form (Form 4)***
 - ***Supplemental Form 1 (HUF Form)***
 - ***Position Control (HNPU1 Form)***
 - ***Direct Deposit Enrollment/Change Form***
 - ***Internal Name/Address Form (HID01 Form)***

Other Issues

Manual Termination Procedures

Agency personnel complete and submit (via the drop-off box) notification of an employee's termination on a "Form 4" to Human Resources. A Human Resources staff member logs the receipt of the Form 4, sends a copy to the HR Badge Team to deactivate the employee's badge, and hand-carries the form to Payroll for processing. The physical receipt of the Form 4 "drives" the termination process. This manual process increases the risk of delayed processing, error and the potential that some of these departments may not even receive the Form 4.

Manual handling of employee termination forms could potentially result in issuing a paycheck to a terminated employee

Although some agencies may send an email to inform Human Resources of an employee termination, electronic notification is not a prevalent practice. The Department of Information Technology (DIT) will not take action to remove the terminated employee's computer privileges until a "System Access Privilege Request" (SAPR) has been submitted electronically. Delayed communication can allow the system privileges of a terminated employee to continue and thus expose the City's network to vulnerabilities.

The Payroll Division does not take official action in TEMS, thereby discontinuing pay, until the paper Form 4 is received. Delayed receipt of this form can potentially continue pay to an employee after termination.

During testing, the auditors observed that the amount of time elapsed from the employee's termination date and the date the Form 4 is received by Human Resources could be between two and three weeks. In one instance, there was a documented case in which an employee in the Sheriff's Department was overpaid due to the delay. The amount of the check was \$1,267.55. Further, auditors observed 11 instances in which identification badges for terminated employees had not been deactivated in a timely manner.

*Effective
practices exist
in other
government
institutions*

The University of Texas at San Antonio has implemented an administrative practice for terminating employees that identifies clearance needs for each departing employee. The departing employee's agency alerts all concerned University departments or offices when an employee is leaving. The unit uses responses from that notification to prepare a separation processing checklist and to indicate those areas that the employee must clear. The employee's agency recovers keys, calling cards, charge cards, ID cards, and any University property issued to the employee. The final step is with Human Resources. An appointment is recommended to ensure that the necessary documents pertaining to employee benefits have been prepared. An electronic personnel action form, a separation form, and separation processing checklist form are used.

It appears that the City of Richmond can adopt similar practices and automated notification forms that can improve efficiency and timeliness of communication. The City can develop a formal policy and set of procedures on electronic notification for terminated employees. The City could design an online document for use as a termination checklist. Department heads can assign the preparation

and distribution of the document through the City's email system when an employee is terminated. The document would be distributed to appropriate units in Human Resources (benefits, badge control, etc.), Retirement, and Finance (Payroll) personnel. The City has the ability to implement such a change without any additional cost.

Recommendations:

12. Implement an electronic termination procedure that streamlines the process and informs all necessary parties. Ideally, an automated message should be sent to all concerned parties upon termination (e.g., HR, DIT, Badge Team, etc.)

13. Implement a checklist or other control to ensure that all City equipment or assets are returned as part of the termination process (e.g., badges, laptop computers, blackberries, etc.)

***Employee
Identification
Badge Process***

The City uses the Pegasus software to store City employee information and issue identification (ID) badges. These badges are used to grant employees' access to City Hall and to secure areas within City Hall. Generally, the Badge Team in Human Resources will receive a security access application that initiates the creation of a badge profile. An employee has to visit Human Resources for a picture to be taken for the badge. This may provide an independent verification of the existence of an employee, thus, reducing the risk of establishing a "sham" employee. Establishing sham employee and misusing funds is a known technique that fraudsters use to misappropriate funds.

Although City policy does require all employees to be issued a badge, there is no control to ensure that badges have been issued to all employees. During testing, the auditors confirmed at least nine employees who were not issued City ID badges.

Recommendations:

- 14. Implement procedures to ensure that all City employees and all constitutional employees who are paid through the City's payroll system are issued an ID badge whose image is filed centrally within Human Resources.***
- 15. Periodically compare the electronic payroll files against the ID badge files to ensure that all City employees have been issued ID badges and that all badges issued to terminated employees have been collected and deactivated.***

***FLSA
Compliance***

FLSA establishes minimum wage, regulates overtime pay, requires proper recordkeeping, and sets youth employment standards affecting employees in the private and public sectors. Violations are subject to fines; repeat offenses may be subject to imprisonment.

The City does not have formal, comprehensive policies or procedures for monitoring compliance with FLSA guidelines

The auditors noted that the City does not have formal, comprehensive policies or procedures pertaining to monitoring for compliance with FLSA guidelines. Keeping manual, secondary recordkeeping for leave and compensatory time earned does not automatically trigger payments in accordance with FLSA. Therefore, an independent verification is required for this purpose.

Absence of a formal monitoring policy and set of procedures increases the risk of noncompliance with federal regulations. The following penalties are provided in FLSA:

1. Employers who willfully violate the FLSA may be criminally fined up to \$11,000.
2. Employers who violate the youth employment provisions are subject to civil money penalty of up to \$11,000 for each employee who was the subject of a violation.
3. Employers who willfully violate the minimum wage or overtime pay requirements are subject to a civil penalty of up to \$1,100 for each violation.

Recommendation:

16. Develop formal policies and procedures for monitoring compliance with the Federal Labor Standards Act for all City and constitutional agencies.

Performance Measures

For payroll processing in any organization, management must know if payments are:

- Issued accurately;
- Issued in a timely manner;
- In compliance with laws and regulations; and
- Associated with only reasonable administrative costs.

Designing performance measures to obtain this information consistently would provide meaningful information for managing and improving the payroll process. Performance measures are critical to management's ability to monitor the accomplishment of operational goals.

Auditors found that the Payroll Division processes payroll checks and direct deposits in a timely manner. Though not specifically

measured as a performance goal, auditors did note that W-2s for City employees were prepared and mailed well ahead of the federal deadline of January 31, 2009. However, a review of the City's Finance website revealed that the City does not have a well-developed process to track measures of payroll efficiency.

The Finance Department has established the following measures:

- Number of manual checks;
- Requests for reversals; and
- Pay adjustments.

However, upon inquiry, the Payroll Division could not furnish any documentation to show the attainment of these measures or goals.

Previous Study

In a 2005 Efficiency and Effectiveness Committee Report commissioned by the previous Mayor, the following observations were included:

- The cost to run a payroll in Richmond was \$9,225 whereas the median cost for peer cities was \$5,144¹.
- The City of Richmond processed 5.4 payroll runs per Payroll Division employee compared to the median for peer cities of 14.7 per payroll employee. This may indicate inefficiencies in the City's payroll process or inadequate productivity in the Payroll function.

¹ The auditors learned that these were one-time measures that are not routinely tracked by the City of Richmond.

The above measures provide some information about the performance of the Division. However, no measures are currently used by the City to gauge the unit's efficiency in controlling the costs of processing payroll. In addition, if the performance measures are designed to be comparable to those used by other organizations, it will help the City to benchmark payroll processing efficiency and effectiveness.

Recommendations:

17. Implement a methodology that identifies and tracks efficiency measures and goals and verifies the achievement of current goals.

18. Use appropriate benchmarks to evaluate payroll processing efficiencies and effectiveness.

***Constitutional
Agencies***

The Finance Department also processes payroll for certain constitutional offices such as the Sheriff, Commonwealth Attorney's Office, etc. The auditors observed that documentation retained by the City from constitutional agencies for new hires and terminations is not consistent with the information required from City departments.

With regard to terminated employees, City departmental payroll technicians must complete a "Notice of Employee Separation" form and forward a copy of the terminated employee's leave sheets to support payout amounts deemed owed to terminated employees; however, constitutional employees consider themselves exempt from having to furnish this information. Without this information, Human Resources cannot verify the accuracy of payout information related to leave records. Potentially, terminated employees may be

over or underpaid without the opportunity for an independent review by Human Resources.

Recommendation:

19. Hold constitutional agencies paid by the City's payroll to the same standards as all other City departments.

***Incomplete
Policies and
Procedures***

The auditors learned that policies and procedures governing the payroll process are not complete. Management does not have a formal process to review, update and validate existing TEMS policies. Also, there are no formal procedures for reviewing and retaining TEMS audit logs, removal of employees from TEMS access, processing controls, or the payroll validation process.

The Government Finance Officers Association (GFOA) notes that communication is an essential component of a comprehensive framework of internal controls. One method of communication that is particularly effective for controls over accounting and financial reporting is the formal documentation of accounting policies and procedures. A well-designed and properly maintained system of documenting accounting policies and procedures enhances both accountability and consistency. The resulting documentation can serve as a useful training tool for staff.

Without appropriate, written policies and procedures, the staff may not comply with them consistently. Errors and omissions occurring due to these occurrences may result in discrepancies that may result in loss.

Recommendations:

20. Develop guidelines for a periodic review and update of payroll policies and procedures.

21. Establish formal policies and procedures as well as "desktop procedures" for all payroll control activities, including review of audit logs, processing controls, etc.

***Inaccurate
Social Security
Records***

On a quarterly basis, upon the City's request, the Social Security Administration confirms the accuracy of the City's employee records and informs the City of any discrepancies with regard to employee name, date of birth, gender, etc. Human Resources contacts employees to inform them to correct the error within 90 days. However, the auditor reviewed a report of exceptions returned to the City and noted ten instances in which the discrepancies have been outstanding for nine months or more. These instances include discrepancies in the name, the date of birth and the gender. Currently, employees are not compelled to correct the discrepancies. The auditors compared personnel photo records and photo IDs to confirm that these individuals were bonafide employees.

IRS guidelines require employers to obtain social security numbers for all employees. Inaccurate social security records can expose the City to penalties and result in inaccurate W-2 information.

Recommendation:

22. Develop appropriate policies and procedures that will ensure compliance with IRS guidelines and accurate social security records.

***Potential
Duplicate
Payments***

To record one-time payments such as bonuses, payroll division personnel have two options within the system. One option will establish a recurring payment which requires manual intervention to terminate the automated process. The other option is a one-time event.

During testing, the auditors discovered an instance of a City employee in the Department of Social Services who received an overpayment of \$1,000 in September 2008. Management confirmed the payment as a duplicate bonus payment, and the employee signed an authorization form on July 9, 2009 to allow the City to reclaim the value of the overpayment.

Payroll Technicians are instructed to use a Payroll Change Form when processing a one-time payment request such as a bonus. This form is designed to accommodate recurring payments and has no option to check for a one-time payment. This increases the risk that a one-time payment will continue until cancelled.

This can be avoided by revising current procedures so that all one-time payment requests are on a form designed to accommodate one-time payments.

Recommendation:

- 23. Revise the departmental process and train staff to require the use of the one-time payment option when processing bonuses or other payments intended for one-time only use.***

Presently, the City of Richmond offers direct deposits to employees on a volunteer basis. The participation for direct deposit by City

***Mandated
Direct
Deposit***

employees averaged 77% over the 15-month audit period. Management initiated a direct deposit drive to increase Citywide participation in September 2008. A review of the most recent pay period ended October 23, 2009 revealed a direct deposit participation rate of 81%.

The following outlines some of the reasons and benefits for mandating direct deposit:

- Direct deposit increases security and control because the information and funds pass through fewer hands with less chance to be compromised or lost.
- Direct deposit ensures that funds are deposited even when employees are not in the office on payday, maximizing employee funds access and interest savings.
- Requiring direct deposit also reduces the risk of “sham employees.” Employees who receive direct deposit into their accounts first have to establish an account with a bank which requires proof of identity.
- Direct deposit eliminates the need and cost of paper remittance advices. The auditors contacted the Commonwealth of Virginia’s Department of Accounts which maintains a website called “Payline” that allows employees to view their paystubs online. Payline also retains 24 months of payroll and leave information, and W-2 information is available for five years. The use of an electronic medium to distribute payroll information saves efforts spent in printing and distributing pay stubs making the payroll process efficient.

Mandating direct deposit has several benefits. Several governments mandate direct deposit of paychecks

- Five of six localities in our benchmark survey require direct deposit for new hires but have grandfathered older employees not on direct deposit. Only Henrico County did not require direct deposit though they did report that 80% of their employees are set up with direct deposit; the remaining localities reported a direct deposit rate ranging from 82% to 100%.

The City Auditor's Office received an opinion from the City Attorney's Office which opined that the Code of Virginia does not prohibit the City of Richmond from implementing a policy that mandates all employees to participate in a direct deposit program.

Additionally, auditors also confirmed through the City of Richmond's lead bank that "direct pay" cards are available for those employees who do not have a bank account. There is no cost to the City for this service.

Recommendations:

- 24. Evaluate the feasibility of mandating all City employees to use direct deposit or the direct pay card service.***
- 25. Develop a website for electronic access that will eliminate paper remittance advices and allow City employees to review payroll-related information.***

The City needs enhanced controls over super-user privileges to avoid potential abuses

Typically, superusers of information systems have access and privileges that allow them to perform many operations including the ability to change tables and security settings. This authority can result in an inappropriate alteration of payroll data if misused. Any

such alteration will not be detected and corrected in a timely manner.

The City Payroll Manager and the Finance Business Analysis Manager are the superusers for the TEMS system. The Business Analysis Manager is also the TEMS security administrator. Both individuals have payroll responsibilities. The Payroll Manager has overall responsibility for payroll processing; the Business Analysis Manager sets up the payroll edit and update jobs and reviews audit trail logs.

The changes made by any user including the superusers are listed on an audit trail log. A review of these logs could identify unauthorized or inappropriate transaction.

The auditors performed the following tests to determine if the security privileges were misused:

- The auditors reviewed and tested three tables in the security setting report and compared the settings against a current copy of the TEMS data dictionary to obtain some assurance that the ability to add new employees and change pay rates of hourly and salaried employees were restricted only to authorized personnel.
- The auditors verified that none of the City employees were receiving more than one paycheck.
- Auditors obtained assurance that pay rates were supported by proper authorization.

It should be noted that, during their tests, auditors have not detected any misuse of authority either by the Payroll Manager or by the Business Analysis Manager.

Recommendations:

26. Analyze the necessity of superusers' privileges and remove access privileges that are determined to be unnecessary for them to perform their duties.

27. Assign review of payroll audit logs to someone who does not have superuser responsibilities.

***City Logon
Policy***

***Compliance with
the City's new
log-on policy
needs
improvement***

Prior to the audit, there was no documented process for removing users who were not active in TEMS. However, the City issued a new password policy in February 2009 that also required automatic revocation of user logon IDs if the user has not logged onto an application within sixty days. The policy also requires automatic deletion, sixty days after revocation if the logon ID has not been reactivated. The purpose of this policy is to provide a control to prevent users who no longer require access from accessing the system. During testing, the auditors found eleven instances in which users remained on the TEMS active user list even though more than one-hundred and twenty days had elapsed from their last logon date.

Recommendation:

28. Enforce the City policy regarding the revocation and deletion of logon IDs not used for 60 days or more.

***Processing
Controls***

FISCAM, a best practice source, states that "if an application is run on a regular schedule to process data, either manually or

automatically, there should be documented procedures accomplishing these tasks and proper controls should be in place to reasonably assure that all processing was completed.

Processing controls are designed to provide reasonable assurance that:

Enhanced procedures are needed to improve processing controls

- Electronic data processing has been performed as intended for a particular application,
- All transactions are processed as authorized,
- No authorized transactions are omitted, and
- No unauthorized transactions are added.

Auditors found that control totals are available to ensure the number of transactions keyed and processed into TEMS is correct; however, it was not clear that these control totals are always reviewed. Furthermore, there is no formal policy or procedure for the validation process to emphasize the importance of reviewing and agreeing these control totals. For example, current procedures do not verify that the biweekly gross pay for the pay period plus the previous pay period's year-to-date total agrees with the system calculated year-to-date pay totals. This type of test can verify the proper functioning of the system's capability to accumulate data and verify that the logic for mathematical calculation is appropriate.

The control totals can be grouped by dollars, records, or in some other way. These totals, when compared with previously computed totals, may provide assurance of program processing accuracy and completeness of data entered. In addition, similar controls must be present to assure the accuracy of data entered.

The absence of these processing controls increases the risk that errors due to inconsistencies in data, system interruptions, communication failures, or corrupted data may not be detected and corrected in a timely manner.

Recommendation:

29. Review TEMS functionality and activate or develop processing controls that provide reasonable assurance of the completeness and accuracy of the information processed.

***Vendor
Support***

Since the City has owned and operated TEMS, there have been changes in the vendor management due to acquisition or divestiture activity. In the late 1990s, an entity known as GEAC bought the operation that provided maintenance and technical support to the TEMS software run by the City. Golden Gate Capital, a private equity firm, bought GEAC in late 2005. As a part of that acquisition, INFOR, which was also a Golden Gate Capital-funded company, acquired GEAC's ERP software products including TEMS.

Ownership of TEMS has changed hands more than once during the City's use of the application; however there is no contingency plan to address the loss of vendor support. COBIT, standards for informational technology professionals, recommends ensuring continuous service. It is not known how long the vendor will support the antiquated version of TEMS that the City possesses.

The City may not be prepared for the loss of use of TEMS due to lack of support from the vendor.

Recommendation:

- 30. Develop a formal contingency plan to address the loss of vendor support.***

DRAFT-CONFIDENTIAL-10-21-09

MANAGEMENT RESPONSE FORM
CITYWIDE PAYROLL PROCESS AUDIT - 2010-04

#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
1	<i>Encrypt TEMS users' passwords.</i>	Y	Contacted vendor to receive an enhancement to the current security module, which will allow the user passwords to be encrypted on the security admin tables. This feature will prevent the TEMS admin from being able to see users' passwords. Solution will be loaded to the test environment for a complete test. Once both installer and security admin are satisfied with results, solution will be loaded to production environment.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Catherine Cook/Business Analysis Manager		1/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
2	<i>Revise the password parameters in TEMS to correspond with stated policies and reject weak passwords.</i>	Y	Contacted vendor to receive enhancement, which will allow TEMS admin to enforce current password policy. Solution is currently available for download from vendor. Will be loaded to test for testing and if both installer and security admin are satisfied with results, solution will be loaded to production environment.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Catherine Cook/Business Analysis Manager		1/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
3	<i>Explore the automation of the Payroll Totals Report and the Payroll Deduction and Register Report reconciliation.</i>	Y	Finance Payroll will work with DIT staff to automate this process to eliminate the manual keying of payroll data from the reports indicated.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
4	<i>Provide Citywide training to ensure timely communication and notice of project code changes to prevent delays in payroll processing.</i>	Y	Finance Payroll will develop a training schedule annually to ensure timely communication of project code changes.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
5	<i>Eliminate paper reports wherever possible with on-line or electronic versions.</i>	Y	DIT has piloted a facility called Page Center that will allow reports to be distributed and viewed via a web portal. This facility also allows for archiving of reports in accordance with retention policies. The goal is to have all reports that are now printed moved to Page Center by December 31, 2009. Reports that will not meet the criteria for distribution in Page Center will be evaluated for future distribution based upon business needs.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Cornelious King/Systems Developer Project Leader		12/31/2009
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION

#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
6	<i>Establish policies and guidelines for the security and safeguarding of reports with sensitive employee data, such as social security numbers.</i>	Y	Finance/DIT implemented the employee number conversion software 6/20/09. The social security number has been replaced on all payroll related reports with the exception of the <i>check register</i> distributed to the agency and the <i>deduction register that is not distributed to the agencies</i> . Finance will develop a policy and guidelines for the security and safeguarding of <i>payroll check register</i> .
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		12/31/2009
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
7	<i>Evaluate the feasibility of available options as a stop-gap measure prior to the implementation of an ERP system.</i>	Y	Will meet with Finance Information Services, Finance Management and DIT to discuss and gather information.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Ronald G. English/Assistant Controller - Disbursements		3/31/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
8	<i>Consider installation of an automated timekeeping system Citywide for all hourly employees when evaluating available options, i.e., outsourcing, new payroll system, etc.</i>	Y	Will meet with Finance Information Services, Finance Management and DIT to discuss and gather information.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Ronald G. English/Assistant Controller - Disbursements		3/31/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
9	<i>Assign higher priority to replacing the TEMS system during ERP system implementation.</i>	Y	Will meet with Finance Information Services, Finance Management to discuss.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Ronald G. English/Assistant Controller - Disbursements		1/31/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
10	<i>Eliminate the use of paper leave records as an option to track leave.</i>	Y	We will resend the Department Excel spreadsheets. We will advise Departments that the paper version/manual options are no longer acceptable and that the electronic version must be utilized. Training will be provided by HR/Finance for those needing training on the electronic spreadsheet.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Lorraine Adeeb/Deputy Director Human Resources		11/30/2009
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION

#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
11	<p><i>Implement electronic approval procedures to eliminate the use of redundant data entry in the leave process, hiring process, termination process and/or employee record changes. Forms which could be automated include:</i></p> <ul style="list-style-type: none"> • <i>Application for Leave</i> • <i>Personnel Action Form (Form 4)</i> • <i>Supplemental Form 1 (HUF Form)</i> • <i>Position Control (HNPU1 Form)</i> • <i>Direct Deposit Enrollment/Change Form</i> • <i>Internal Name/Address Form (HID01 Form)</i> 	Y	DIT uses Metastorm as a means of automating forms and the business process flow associated with the form. This tool could be used to automate these forms and transaction created to update the employee record in TEMS without manual intervention. The Personnel Action Form (Form 4) has been earmarked as the first to be automated.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Cornelious King/Systems Developer Project Leader		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
12	<p><i>Implement an electronic termination procedure that streamlines the process and informs all necessary parties. Ideally, an automated message should be sent to all concerned parties upon termination (e.g., HR, DIT, Badge Team, etc.)</i></p>	Y	Meet with Automation Coordinators in all departments to develop requirements for developing an automated check list to accommodate the issuance of all City owned assets to employees. Once the business requirements for all departments are defined, the Metastorm applications would be used to automate the business process for alerts and notifications.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Cornelious King/Systems Developer Project Leader		9/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
13	<p><i>Implement a checklist or other control to ensure that all City equipment or assets are returned as part of the termination process (e.g., badges, laptop computers, blackberries, etc.)</i></p>	Y	This recommendation would be incorporated as a part of recommendation 12. DHR will assist in the standardization of an equipment return checklist to be used when separating employees or in the general return of equipment by the employee.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Cornelious King/Systems Developer Project Leader Lorraine Adeeb/Deputy Director Human Resources		
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
			9/30/2010
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
14	<p><i>Implement procedures to ensure that all City employees and all constitutional employees who are paid through the City's payroll system are issued an ID badge whose image is filed centrally within Human Resources.</i></p>	Y	Please refer to Administrative Regulation 4.12 - City Facilities Identification Card & Security Procedures. The regulation outlines the procedures and party responsibilities for issuance and return of employee ID cards. All employees are included (Constitutional employees included also). HR will notify the appointing authority within 7 days after periodic reconciliation of those employees who have not been issued an ID badge. Employees will be required to comply with Administrative Regulation 4.12 within 10 days.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Lorraine Adeeb/Deputy Director Human Resources		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION

#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
15	<i>Periodically compare the electronic payroll files against the ID badge files to ensure that all City employees have been issued ID badges and that all badges issued to terminated employees have been collected and deactivated.</i>	Y	Upon completion of recommendation #14 above, an automated comparison will be performed periodically between the Pegus System and payroll files to ensure all City employees have been issued an ID badge.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Cornelius King/Systems Developer Project Leader		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
16	<i>Develop formal policies and procedures for monitoring compliance with the Federal Labor Standards Act for all City and constitutional agencies.</i>	Y	Management will review options for implementing periodic audits to ensure compliance with the Federal Labor Standards Act and/or establish a separate Federal Labor Standards Act policy.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Lorraine Adeb/Deputy Director Human Resources		1/1/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
17	<i>Implement a methodology that identifies and tracks efficiency measures and goals and verifies the achievement of current goals.</i>	Y	Finance Payroll currently has departmental goals as well as divisional goals. We will implement additional goals to measure efficiency as well as tracking the achievement of the goals.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
18	<i>Use appropriate benchmarks to evaluate payroll processing efficiencies and effectiveness.</i>	Y	Finance Payroll will use appropriate benchmarks issued by (i.e. American payroll association and other organizations) to evaluate processing efficiencies and effectiveness.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
19	<i>Hold constitutional agencies paid by the City's payroll to the same standards as all other City departments.</i>	Y	Will meet with Constitutional agencies and HR to propose they either comply with City's pay schedule and leave practices or consider outsourcing their payroll functions.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Ronald G. English/Assistant Controller - Disbursements		3/31/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
20	<i>Develop guidelines for a periodic review and update of payroll policies and procedures.</i>	Y	Will complete within FY 2010.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Ronald G. English/Assistant Controller - Disbursements		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION

#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
21	<i>Establish formal policies and procedures as well as "desktop procedures" for all payroll control activities, including review of audit logs, processing controls, etc.</i>	Y	Identify all 'payroll and processing control activities'. Review current SOP's for all payroll control activities to determine procedures, which need to be updated. Begin the process of establishing policies/procedures for those SOP's as well as review of TEMS audit reports.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Catherine Cook/Business Analysis Manager		4/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
22	<i>Develop appropriate policies and procedures that will ensure compliance with IRS guidelines and accurate social security records.</i>	Y	Implement stronger enforcement of the SSN match process. However, the IRS may change the responsibility of enforcement from the employer. This item may need further research prior to any stronger enforcement actions.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Lorraine Adeeb/Deputy Director Human Resources		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
23	<i>Revise the departmental process and train staff to require the use of the one-time payment option when processing bonuses or other payments intended for one-time only use.</i>	Y	Implemented - see details below
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		N/A
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
			The use of TEMS screen H10SP has been discontinued to process one-time special payments. Primary use of the on line screens for one-time payment options is currently being used. The Finance Payroll Department will communicate and train agency payroll personnel to use the HUF Payment Form for one-time use payments.
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
24	<i>Evaluate the feasibility of mandating all City employees to use direct deposit or the direct pay card service.</i>	Y	Will meet with Finance Management, Finance Treasury Services, Wachovia Bank Treasury Rep. and DIT to discuss and gather information.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Ronald G. English/Assistant Controller - Disbursements		3/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
25	<i>Develop a website for electronic access that will eliminate paper remittance advices and allow City employees to review payroll-related information.</i>	Y	DIT is currently investigating options for implementing an employee self service web portal for accessing payroll related information. In addition to in house development, the vendor that supports the TEMS application (Infor) has been contacted concerning the viability of their Employee Self Service Module working with the current TEMS application.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Cornelious King/Systems Developer Project Leader		12/31/2009
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION

#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
26	<i>Analyze the necessity of superusers' privileges and remove access privileges that are determined to be unnecessary for them to perform their duties.</i>	Y	It has been determined that the TEMS administrator (super user) does not need update rights to employee level information, such as salary, ee assignment data, etc, to perform his/her security admin duties. TEMS security screens will be updated to reflect READ ONLY rights for those employee level tables for designated 'super users'.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Catherine Cook/Business Analysis Manager		1/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
27	<i>Assign review of payroll audit logs to someone who does not have superuser responsibilities.</i>	Y	Payroll Manager will perform an assessment of payroll staff's roles and responsibilities and assign review of the audit logs bi-weekly.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
28	<i>Enforce the City policy regarding the revocation and deletion of logon IDs not used for 60 days or more.</i>	Y	Contacted the vendor and they provided security enhancement. This will allow TEMS admin to enforce policy, which will delete inactive user ID's/passwords after 120 days. Solution will be loaded into test and after both installer and admin are satisfied with results, solution will be loaded to production.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Catherine Cook/Business Analysis Manager		1/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
29	<i>Review TEMS functionality and activate or develop processing controls that provide reasonable assurance of the completeness and accuracy of the information processed.</i>	Y	Payroll Manager will review the functionality of TEMS and document processing controls to ensure completeness and accuracy of the information processed.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Sonya Howell/Payroll Manager		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y-N	ACTION STEPS
30	<i>Develop a formal contingency plan to address the loss of vendor support.</i>	Y	There are consulting firms that will provide independent support for the application on a as needed basis. The City has received information from some of these companies but have never made contact because of existing vendor support.
	RESPONSIBLE PERSON/TITLE		TARGET DATE
	Cornelious King/Systems Developer Project Leader		6/30/2010
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION