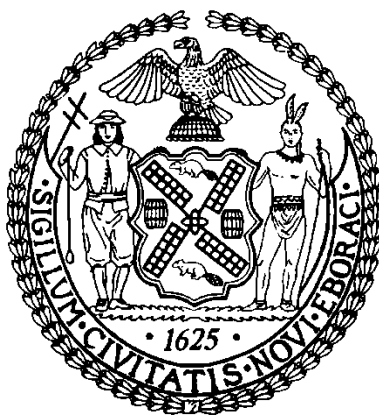# CITY OF NEW YORK
OFFICE OF THE COMPTROLLER

John C. Liu
Comptroller

BUREAU OF FINANCIAL AUDIT

H. Tina Kim
Deputy Comptroller for Audit

Follow-up Audit Report on the Development and Implementation of the Paperless Office System By the Human Resources Administration

FS10-057F

April 21, 2010

THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
1 CENTRE STREET
NEW YORK, N.Y. 10007-2341

John C. Liu
COMPTROLLER

April 21, 2010

To the Residents of the City of New York

Ladies and Gentlemen:

My office has audited the Human Resources Administration (HRA) to determine whether the agency implemented the nine recommendations made in a previous audit entitled *Audit Report on the Development and Implementation of the Paperless Office System by the Human Resources Administration* (Audit No. 7A04-099, issued May 2, 2005).

The current follow-up audit found that of the nine recommendations made in the previous audit, HRA implemented six recommendations, partially implemented one, and did not implement one. One recommendation was found to be no longer applicable. HRA's Paperless Office system (POS) is currently linked to several of its own agency systems, state systems, and other City agency systems. HRA incorporated a tracking system to monitor POS enhancement phases, has complied with the City's procurement rules, and has an adequate disaster recovery plan, written policy, and procedure for POS. In addition, users are generally satisfied with the system. HRA agreed with the current report's two recommendations to terminate inactive user identifications and to engage an independent quality-assurance consultant for system development.

I trust that this report contains information that is of interest to you. If you have any questions concerning this report, please e-mail my audit bureau at audit@Comptroller.nyc.gov or telephone my office at 212-669-3747.

Sincerely,

John C. Liu

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AUDIT REPORT IN BRIEF

This follow-up audit determined whether the Human Resources Administration (HRA) has implemented the nine recommendations made in a previous audit entitled *Audit Report on the Development and Implementation of the Paperless Office System by the Human Resources Administration* (Audit No. 7A04-099, issued May 2, 2005).

The 2005 audit evaluated whether the development of the Paperless Office System (POS) followed a formal system development methodology, meets the initial business and operational requirements, was designed to allow future enhancements and upgrades, was procured in accordance with City Charter provisions and Procurement Policy Board Rules, and has been incorporated into the HRA's disaster recovery plan.

The 2005 audit found that POS was not completed on time and did not meet HRA's initial business and operation requirements. In addition, the agency disaster recovery plan was inadequate and did not incorporate POS. There was incomplete information about the manner in which the contract was procured. Furthermore, HRA lacked written policies and procedures to ensure that POS user accounts are adequately controlled. Finally, the information presented about POS in the Mayor's Management Report (MMR) gave the false impression that POS development was progressing smoothly.

Audit Findings and Conclusions

The current follow-up audit disclosed that of the nine recommendations made in the previous audit, HRA implemented six recommendations, partially implemented one, and did not implement one. We found one recommendation to be no longer applicable. HRA has implemented changes in the following areas: POS is currently linked to several of its own agency systems, the State systems, and other City agency systems; HRA incorporated a tracking

system to monitor POS enhancement phases, which includes the testing phase; HRA has complied with the City's procurement rules. In addition, based on the POS user survey, users are generally satisfied with the system. HRA has an adequate disaster recovery plan that includes POS and a written policy and procedure for POS. HRA has developed policies and procedure to ensure that user accounts are adequately controlled; however, some POS users are listed as inactive employees. Also, HRA did not engage an independent quality-assurance consultant for system development. Finally, the recommendation regarding inclusion of complete POS data in the MMR is no longer applicable since the MMR format has changed significantly since 2005.

Audit Recommendations

To address the outstanding issues from the previous audit that still exist, we recommend that HRA officials:

1. Employ an independent quality-assurance consultant in future systems developments to oversee and monitor HRA's entire systems development process from its inception.

2. Periodically review the status of inactive user accounts and terminate access where appropriate.

INTRODUCTION

Background

HRA's mission is to enhance the quality of life for all City residents by providing temporary assistance to eligible individuals and families to help them lead independent and productive lives. HRA accomplishes its mission through the administration of a wide range of social welfare benefits and services, including public assistance, Medicaid, food stamps, and job training centers. In 1993, HRA reviewed its benefit application process and found it labor-intensive, inefficient, and error-prone. To address these problems and to prepare for an anticipated increase in service demand, HRA decided to develop the POS.

POS was intended to serve as a single data entry point for several HRA programs and to automate the process of determining and re-certifying public assistance eligibility. Automation was to be accomplished by integrating direct data entry and image processing, workflow management, decision-support software, and communications links to the New York State Welfare Management System and other databases.[1] Specific POS objectives were to electronically verify applicant eligibility data; significantly reduce the number of fraudulent claims and fair hearing losses; improve eligibility worker productivity and client service; and promote accountability and responsive case management.

POS was introduced as a pilot program at the Melrose Income Support Center in July 1997 and at the Hamilton Center in March 1999. It is currently running at 27 HRA offices.

Objective

The objective of this follow-up audit was to determine whether HRA implemented nine recommendations contained in a previous audit, *Audit Report on the Development and Implementation of the Paperless Office System by the Human Resources Administration* (Audit No. 7A04-099, issued May 2, 2005).

Scope and Methodology

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. This audit was conducted in

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[1]POS was specifically designed to interact with New York State's Welfare Management System.

accordance with the audit responsibilities of the City Comptroller as set forth in Chapter 5, §93, of the New York City Charter.

The scope period of this follow-up audit was Fiscal Year 2009. To meet our objectives, we interviewed HRA Management Information Systems (MIS) officials and reviewed POS written policies and procedures. In addition we:

- Reviewed the prior audit report issued by the Comptroller's Office *Audit Report on the Development and Implementation of the Paperless Office System by the Human Resources Administration,* Audit No.7A04-099 issued May 2, 2005;

- Conducted a system walk-through to review how POS functions;

- Reviewed the POS Enrollment Manual and the POS System Development Methodology and Process;

- Reviewed HRA MIS's security policies and procedures;

- Reviewed the MIS Business Continuity and Disaster Recovery Plans;

- Reviewed and determined the validity of eight items from the POS Enhanced Tracking System (PETS) tracking log provided by HRA that shows testing and approval sign-offs;

- Compared POS users with the City's Payroll Management System (PMS) to determine whether these users are active employees;

- Conducted a user survey to determine whether users were satisfied with POS and what changes they would recommend be made to the system. We sent a survey to 250 of the 2,513 POS users that HRA identified as active POS users. The 250 users were randomly selected. We received 116 responses from the 250 users who received the survey; and

- Reviewed and relied on another HRA system audit conducted by the Comptroller's Office, *Audit Report on the Development and Implementation of the Medical Assistance Tracking Information System by the Human Resources Administration,* Audit No. 7A07-066, issued September 17, 2007, to assess more recent compliance with Procurement Policy Board rules.

As criteria, we used Department of Information Technology and Telecommunications (DoITT) Citywide Information Security Policies and Directives and National Institute of Standards and Technology (NIST) Standards.

Discussion of Audit Results

       The matters covered in this report were discussed with HRA officials during and at the conclusion of this audit. A preliminary draft report was sent to HRA officials and was discussed at an exit conference held on March 3, 2010. On March 12, 2010, we submitted a draft report to the HRA officials with a request for comments. We received a written response from HRA officials on March 25, 2010. HRA agreed with the findings and recommendations of this audit. The full text of the HRA response is included as addendum to this report.

RESULTS OF FOLLOW-UP AUDIT

The current follow-up audit disclosed that of the nine recommendations made in the previous audit, HRA implemented six recommendations, partially implemented one, and did not implement one. In addition, the audit found one recommendation to be no longer applicable. HRA's POS is currently linked to several of its own agency systems, the State systems, and other City agency systems. HRA incorporated a tracking system to monitor POS enhancement phases, which includes the testing phase. HRA has complied with the City's procurement rules. In addition, based on the POS user survey, users are generally satisfied with the system. HRA has an adequate disaster recovery plan and a written policy and procedure for POS. However, some POS users are listed as inactive employees. Also, HRA did not engage an independent quality-assurance consultant for system development.

Previous Findings: "Deficiencies in System Development"

The previous audit found that the delays to the development of POS resulted in systems functions not completed.

Previous Recommendation #1: "Complete and make operational all missing functional items including all computer links identified in this report."

Previous Response #1: "We disagree with this recommendation. Many of the functions identified as missing have either been implemented or removed from the project scope. The development priorities of POS continue to be set by feedback from the executive staff responsible for managing the programs that are supported by POS.

"As for the computer links, HRA will continue to negotiate with the Department of Education, the Department of Motor Vehicles, the NYC Housing Authority and the Housing Preservation and Development to develop MOUs that will establish linkages to their databases."

Current Status: IMPLEMENTED

POS has been in operation at multiple job centers since 2003, when it was initially rolled out at the Dyckman Job Center. POS has direct links to the New York State's Welfare Management System and other City agencies (e.g., Department of Health and Mental Hygiene's Vital Records, DoITT's Geosupport system). Furthermore, POS has external file or web-based links to other agencies such as the Department of Housing Preservation and Development, New York City Housing Authority, Department of Homeless Services, and the Department of Education Student Enrollment Verifications. Therefore, we consider this recommendation to be implemented.

Previous Recommendation#2: "Enhance the system to include various information such as testing results, user-acceptance certificates and corresponding acceptance criteria, and a complete project management log."

Previous Response #2: "We agree with this recommendation. Testing results and corresponding acceptance criteria are currently incorporated in PETS."

Current Status: IMPLEMENTED

HRA now uses PETS to track the status of each enhancement phase: analysis, designing, user testing, and implementations. The PETS tracking logs included the audit trail of the enhancements made to POS. Therefore, we consider this recommendation to be implemented.

Previous Recommendation#3: "Successfully complete testing before implementing all subsequent portions of the system."

Previous Response #3: "We agree with this recommendation. Testing results and corresponding acceptance criteria are currently incorporated in PETS."

Current Status: IMPLEMENTED

HRA officials provided PETS tracking logs that showed testing sign-off before moving to production. Therefore, we consider this recommendation to be implemented.

Previous Finding: "Quality Assurance Consultant Not Engaged at Start of Project"

Previous Recommendation#4: "Employ an independent quality-assurance consultant to oversee and monitor the entire development process from its inception."

Previous Response #4: "While we agree to follow Directive #18 when developing future projects, we disagree that the development of POS was beset by many of the problems identified in this report."

Current Status: NOT IMPLEMENTED

In order to determine whether HRA engaged an independent quality-assurance consultant at the inception of system development, we requested information regarding any systems that HRA developed after POS. According to HRA officials, there is no new system comparable to POS being developed, and the HRA Quality Assurance unit does not have the proper resources required to satisfy the functions identified in the recommendation. However, the Comptroller's Office conducted a system audit entitled *Audit Report on the Development and Implementation of the Medical Assistance Tracking Information System (MATIS) by the Human Resources*

Administration, issued September 17, 2007, and found HRA had not engaged an independent quality assurance consultant for the development of MATIS. This system was implemented in May 2005. Therefore, we consider this recommendation to be not implemented.

Previous Findings: "HRA lacks documentation"

We determined that 6 of the 11 consulting contracts were missing documentation that we needed to evaluate whether the purchases conformed to applicable City Charter provisions and PPB Rules. The missing documentation included pre-solicitation reviews, specifications, contracts, and Vendex questionnaires.

> ***Previous Recommendation #5:*** "The Department should maintain complete documentation related to all contracts including pre-solicitation reviews, contract specifications, source-selection criteria and evaluations, price-cost analyses, bids and proposals, Vendex questionnaires, recommendation for awards, and contract registrations, in accordance with PPB rules."
>
> ***Previous Response #5***: "HRA's contract files are complete and appropriate."
>
> **Current Status: IMPLEMENTED**

In the previously mentioned system audit conducted by the Comptroller's Office, we found that HRA had complied with the City Charter and relevant Procurement Policy Board rules when procuring services, equipment, and software for the system. Therefore, we consider this recommendation to be implemented.

Previous Finding: "Inadequate Disaster Recovery Plan"

HRA's overall disaster recovery plan was not adequate to ensure that critical agency operations can be restored in the event of disaster. In addition, HRA did not incorporate POS into its plan.

> ***Previous Recommendation #6:*** "The Department should establish a comprehensive agency-wide disaster recovery plan in accordance with applicable provisions of Directive 18 and incorporate POS into the plan."
>
> ***Previous Response #6:*** "We partially agree with this recommendation. HRA views the disaster recovery capability of its critical applications as a very serious matter and integral component of all systems. As previously stated we will improve our existing plan with the implementation of the Veritas suite of backup and recovery software."
>
> **Current Status: IMPLEMENTED**

HRA officials provided a detailed copy of the MIS Business Continuity and Disaster Recovery Plan. The plan included disaster recovery team, disaster recovery declaration/notification, MIS emergency contact list, emergency procedures for IBM mainframe recovery, infrastructure recovery plan, applications recovery and contingency plan, and HRA contingency plan for manual operations. In addition, HRA has incorporated POS into its disaster recovery plan. Therefore, we consider this recommendation to be implemented.

Previous Finding: "User Satisfaction Survey, Problems with System Performance"

Many of the users that responded to the auditors' survey were unsatisfied with the system's performance, and the majority of the respondents stated they would like to see changes made to the system.

> *Previous Recommendation #7:* "The Department should ensure that the user concerns identified in the report are addressed. In this regard, the Department should work towards shortening system response times, increasing application availability, standardizing screens and modes of completing action, isolating errors, improving handling of reported problems by the help desk, and providing more frequent training."

> *Previous Response #7:* "We agree that users' concerns are to be taken into consideration in the ongoing modification of the system. Several of the concerns raised in the survey had been addressed previously."

Current Status: IMPLEMENTED

We conducted a user survey as part of the follow-up audit to determine whether POS users are currently satisfied with the system. We randomly selected 250 POS users for our survey sample and received 116 returned responses. Based on the survey results, we found that approximately 50 percent (61) of the respondents agree that the slow response time of POS prevents them from completing a transaction. However,

- 110 of the 116 respondents feel that the system is often available,
- 105 respondents feel that the layout of POS is either easy to work with (64) or somewhat easy (41) to work with,
- 112 respondents feel that the contents are often either reliable and useful (64) or somewhat reliable and useful (48),
- 113 respondents feel that POS is either easy to use (64) or somewhat easy to use (49),

Therefore, we consider this recommendation to be implemented.

Previous Finding: "The Department does not have written policies and procedures in place to ensure that user accounts are adequately controlled."

> *Previous Recommendation #8:* "The Department should develop written policies and procedures for tracking system users and terminating inactive user-IDs. In addition, the Department should periodically review the status of inactive user accounts and terminate access, where appropriate."

> *Previous Response #8:* "We agree and have policies in place for tracking and terminating users. In addition, FIA [Family Independence Administration] is currently updating the Enrollment Software Manual for distribution through their Office of Procedures. FIA Regional Management will be reminded that periodic reviews of the Enrollment Software are required to ensure Job Center staff maintains their tables appropriately."

> **Current Status: PARTIALLY IMPLEMENTED**

HRA officials provided a copy of its POS Enrollment Manual. The manual stated the procedure of adding new users, changing user status (active, inactive/on leave, resigned, retired, or transferred). To determine whether HRA reviews the status of POS users, we examined the list of 2,513 POS users provided by HRA officials and compared them with the PMS record. We found 144 of the users are not listed in PMS and an additional 134 users are shown to be inactive. Therefore, we consider this recommendation to be partially implemented.

After the exit conference, HRA MIS provided a list to show that they have updated 83 of 134 user status.

Previous Finding: "Misleading Information in the Mayor's Management Report"

The previous audit found that much of the information presented in the MMR about POS provided the false impression that the project was progressing on schedule.

> **Prior Recommendation #9: "**The Department should ensure that it provides complete and reliable information to the Mayor's Office of Operations for inclusion in the MMR."

> *HRA Response:* "We agree with the concept of this finding and will continue to provide the Mayor's Office of Operations with complete and reliable information for inclusion in the MMR as has been done historically."

Current Status: NO LONGER APPLICABLE

The MMR format has changed significantly since 2005. The current format is more analytic, statistical, and provides performance-related information. Additionally, POS has been

operational for several years so the current MMR report does not discuss system status. Therefore, we consider the recommendation no longer applicable.

RECOMMENDATIONS

To address the outstanding issues from the previous audit that still exist, we recommend that HRA officials:

1. Employ an independent quality-assurance consultant in future system developments to oversee and monitor HRA's entire systems development process from its inception.

HRA Response: "HRA agrees with this recommendation. The independent Quality Assurance Division of the Office of Information Resources Management will monitor and oversee all future systems development for applications."

2. Periodically review the status of inactive user accounts and terminate access where appropriate.

HRA Response: "HRA agrees with this recommendation and has instituted various rigid policies to review and terminate inactive user identifications. We will continue to be vigilant in adhering to these policies."

NYC

Human Resources
Administration
Department of
Social Services

Office of
Audit Services

Robert Doar
Commissioner

Patricia M. Smith
First Deputy
Commissioner

Jane Corbett
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180 Water Street
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March 25, 2010

H. Tina Kim
Deputy Comptroller for Audit
The City of New York
Office of the Comptroller
Bureau of Financial Audit
1 Centre Street, Room 1100
New York, NY 10007-2341

Re: Follow-up Audit on the Development
and Implementation of the Paperless Office
System by the Human Resources
Administration

Dear Deputy Commissioner Kim:

We have reviewed the report dated March 12, 2010, on your Follow–up Audit on
the Development and Implementation of the Paperless Office System by the
Human Resources Administration. The follow-up review examined whether
HRA has implemented the nine recommendations made in your previous Audit
Report #7A04-099 which detailed the results of your audit of the same system,
and was issued on May 2, 2005. The current review disclosed that of the nine
recommendations, HRA has implemented six, partially implemented one and did
not implement one. It further found that one recommendation is no longer
applicable. As a result of the follow-up review, the auditors have made two
recommendations.

Below is our response to the two recommendations.

Auditor's Recommendation #1:
Employ an independent quality-assurance consultant in future systems
developments to oversee and monitor HRA's entire system development
process from its inception.

Agency's Response:
HRA agrees with this recommendation. The independent Quality Assurance
Division of the Office of Information Resources Management will monitor and
oversee all future systems development for applications.

Auditor's Recommendation #2:
Periodically review the status of inactive user accounts and terminate access where appropriate.

Agency's Response:
HRA agrees with this recommendation and has instituted various rigid policies to review and terminate inactive user identifications. We will continue to be vigilant in adhering to these policies.

We trust that the actions we have taken to address the concerns cited in this draft report demonstrate our commitment to improving our systems development and implementation procedures. However, should you have any questions, please contact Hope Henderson, Director of the Bureau of Coordination, at (212) 331-4660.

Sincerely,

Jane Corbett

Jane Corbett

c: Commissioner Robert Doar
      Patricia M. Smith
      Richard Siemer