

# AUDIT REPORT

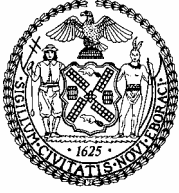


CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
BUREAU OF FINANCIAL AUDIT  
**WILLIAM C. THOMPSON, JR., COMPTROLLER**

## **Audit Report on the Development and Implementation Of the Paperless Office System By the Human Resources Administration**

7A04-099

May 2, 2005



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

WILLIAM C. THOMPSON, JR.  
COMPTROLLER

**To the Citizens of the City of New York**

Ladies and Gentlemen:

Pursuant to Chapter 5, Section 93 of the New York City Charter, we performed an audit on the development and implementation of the Paperless Office System by the Human Resources Administration. The results of our audit, which are presented in this report, have been discussed with agency officials, and their comments have been considered in preparing this report.

Audits such as this provide a means of ensuring that City agencies are developing computer applications in an efficient, timely and cost-effective manner.

I trust that this report contains information that is of interest to you. If you have any questions concerning this report, please contact my audit bureau at 212-669-3747 or e-mail us at [audit@Comptroller.nyc.gov](mailto:audit@Comptroller.nyc.gov).

Very truly yours,

A handwritten signature in cursive script that reads "William C. Thompson, Jr.".

William C. Thompson, Jr.

WCT/gr

**Report:** 7A04-099  
**Filed:** May 2, 2005

*The City of New York  
Office of the Comptroller  
Bureau of Financial Audit  
EDP Audit Division*

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Development and Implementation  
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By the Human Resources Administration**

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**AUDIT REPORT IN BRIEF**

We performed an audit on the development and implementation on the Paperless Office System (POS) by the Human Resources Administration (HRA). The goal of the system was to act as a single data entry point for several Department programs, and to automate the process of determining and re-certifying public assistance eligibility.

**Audit Findings and Conclusions**

Despite following formal systems development methodologies and spending more than \$47 million on system design and development, POS, which according to the Fiscal Year 1996 Mayor's Management Report (MMR) was to be implemented citywide by April 1998, is not complete and does not meet the Department's initial business and operating requirements. In addition, while we found that POS' design allows for future enhancements and upgrades we could not determine whether POS, as a finished product, meets the overall goals stated in the system justification description because, as stated, the system is not complete.

Furthermore, the Department's disaster recovery plan is inadequate to ensure that critical agency operations can be restored in the event of a disaster and POS has not been incorporated into such a plan. Moreover, although we determined that 22 consulting contracts were appropriately procured, we could not determine whether six contracts were procured in accordance with applicable City Charter provisions and PPB rules. As previously stated as a scope limitation, the Department did not provide us with complete documentation of all POS contracts—some Department files were missing, others had incomplete information about the manner in which the contract was procured.

Finally, our survey of POS users disclosed that 76 percent would like to see changes made to POS to improve response time, reporting, and data accuracy; the Department lacks written policies and procedures to ensure that POS user accounts are adequately controlled; and the information presented about POS to the public in the MMRs that were reviewed gave the false impression that POS development was progressing smoothly.

## **Audit Recommendations**

To address these issues we recommend that HRA should:

- Complete and make operational all missing functional items including all computer links identified in this report.
- Enhance the system to include various information such as testing results, user-acceptance certificates and corresponding acceptance criteria, and a complete project management log.
- Successfully complete testing before implementing all subsequent portions of the system.
- Employ an independent quality-assurance consultant to oversee and monitor the entire development process from its inception.
- 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, contract registrations, in accordance with PPB rules.
- Establish a comprehensive agency-wide disaster recovery plan in accordance with applicable provisions of Directive 18 and incorporate POS into the plan.
- 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.
- 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.
- Ensure that it provides complete and reliable information to the Mayor's Office of Operations for inclusion in the MMR.

# INTRODUCTION

## Background

The Human Resources Administration (Department) helps individuals and families achieve their highest level of self-reliance. The Department provides income support and social services to the City's needy residents by managing entitlement programs such as income support, food stamps, and medical assistance. In 1993 the Department 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 the Department decided to develop the Paperless Office System (POS).

POS was intended to serve as a single data entry point for several Department programs, and to automate the process of determining and re-certifying public assistance eligibility. This 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.<sup>1</sup> POS' specific 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.

Department officials consider POS to be critical to their mission, and have asserted that more than \$47 million has been expended for its development. According to the 1996 Mayor's Management Report, the Department stated that "citywide implementation of the system will begin in February 1997 and be completed in April 1998." The Department initially planned to develop POS in conjunction with New York State.<sup>2</sup> However, in 1996, responsibility for development was transferred solely to the Department after the State decided to discontinue its involvement. In April 1997, POS' scope was extended to include functions used at Department Job Centers. POS was introduced as a pilot program at the Melrose Income Support Center in July 1997 and in March 1999, at the Hamilton Center. It is currently implemented at 31 of the Department's offices.

## Objectives

The objectives of the audit were to determine whether POS:

- was designed and developed by following a formal systems development methodology;
- meets the Department's initial business and operating requirements;
- as a finished product meets the overall goals stated in the system's justification description;

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<sup>1</sup>POS was specifically designed to interact with New York State's Welfare Management System.

<sup>2</sup>The City and State have traditionally cooperated on social service matters since more than 70 percent of the State's public assistance cases come from the City. The system is considered to be interim and will eventually be replaced by the State's Human Services Modernization System.

- was designed to allow for future enhancements and upgrades;
- was procured in accordance with City Charter provisions and Procurement Policy Board (PPB) Rules; and
- has been incorporated into the Department’s disaster recovery plan.

### **Scope and Methodology**

We conducted fieldwork between September 2003 and October 2004. To achieve our audit objectives, we interviewed Department officials, reviewed and analyzed system-related documentation, project plans and timelines, user manual, contracts, system assessments, and applicable environmental policies, standards, and procedures. We reviewed Department compliance with applicable PPB Rules. We also conducted walk-throughs at a Department work site that was not utilizing the system, and at 10 work sites at which the system was in use. In addition, we reviewed and analyzed the following documents:

- *Advanced Planning Document for the New York City Human Resources Administration Paperless Office System, HRA 3000* dated July 31, 1996;
- *Technical Assessment of the Paperless Office System*, prepared by Gartner Consulting, dated December 8, 1999;
- *POS System Development Methodology and Standards*;
- *POS/Melrose Scope of Functionality, Attachment A*, in the July 1999 Memorandum of Agreement;
- *Business Case for the Ladder to Success/Paperless Office System*;
- Mayor’s Management Reports from 1995 through the present;

We used Comptroller’s Internal Control and Accountability Directive 18, *Guidelines for the Management, Protection and Control of Agency Information and Information Processing Systems* (Directive 18), and applicable City Charter and PPB rules as criteria for this audit. Since the City has no stated formal system-development methodology, we used the National Institute of Standards and Technology Special Publication 500-223, *A Framework for the Development and Assurance of High Integrity Software*, to assess whether the Department followed a formal methodology.

Finally, we conducted a user satisfaction survey, the purpose of which was to determine whether users are satisfied with POS, whether they have been appropriately trained in its use, and what changes they would like made to the system. We sent our survey to a random selection of 200 of the 3,112 system users—95 users responded. Our survey was not designed to project its results to all POS users; however, we believe that the results provide a reasonable basis to assess user satisfaction.

This audit was conducted in accordance with generally accepted government auditing standards (GAGAS) and included tests of the records and other auditing procedures considered necessary. This audit was performed in accordance with the audit responsibilities of the City Comptroller, as set forth in Chapter 5, § 93, of the New York City Charter.

### **Scope Limitation**

Despite repeated requests, the Department did not provide us with complete documentation of POS contracts. Although we were able to independently locate some of this documentation, we cannot be reasonably assured of having obtained all POS contracts. Consequently, we could not adequately fulfill one of our audit objectives, which was to determine whether the Department procured POS in accordance with applicable City Charter provisions and PPB Rules. These issues are fully disclosed in the Findings section of this report.

### **Discussion of Audit Results**

The matters covered in this report were discussed with Department officials during and at the conclusion of this audit. A preliminary draft report was sent to Department officials and discussed at an exit conference held on January 26, 2005. On February 24, 2005, we submitted a draft report to Department officials with a request for comments. We received a written response from Department officials on March 24, 2005.

In its response the Department stated: “While HRA has afforded the auditors every opportunity to understand, clarify and put into context the information in their examination the findings in the resulting draft report do not reflect our discussions.” Also, according to the response, “several of the findings imply current day deficiencies that are not accurate.”

The Department’s specific comments about our findings and our rebuttals are contained in the relevant sections of this report. However, as a general comment to the Department’s response, we note that its sweeping rejection of our audit findings is not substantiated by our review and analysis of the documentation provided by the Department. Moreover, while the Department’s response implies that this project was a success, the fact remains that the City has invested more than \$47 million on a system that is still in development seven years after its scheduled completion date.

The full text of the Department’s response is included as an addendum to this report.

## **FINDINGS AND RECOMMENDATIONS**

Despite following formal systems development methodologies and spending more than \$47 million on system design and development, POS, which according to the Fiscal Year 1996 Mayor’s Management Report (MMR) was to be implemented citywide by April 1998, is not complete and does not meet the Department’s initial business and operating requirements. In addition, while we found that POS’ design allows for future enhancements and upgrades we could not determine whether POS, as a finished product, meets the overall goals stated in the system justification description because, as stated, the system is not complete.

Furthermore, the Department's disaster recovery plan is inadequate to ensure that critical agency operations can be restored in the event of a disaster and POS has not been incorporated into such a plan. Moreover, although we determined that 22 consulting contracts were appropriately procured, we could not determine whether six contracts were procured in accordance with applicable City Charter provisions and PPB rules. As previously stated as a scope limitation, the Department did not provide us with complete documentation of all POS contracts—some Department files were missing, others had incomplete information about the manner in which the contract was procured.

Finally, our survey of POS users disclosed that 76 percent would like to see changes made to POS to improve response time, reporting, and data accuracy; the Department lacks written policies and procedures to ensure that POS user accounts are adequately controlled; and the information presented about POS to the public in the MMRs that were reviewed gave the false impression that POS development was progressing smoothly.

These issues are discussed in the following sections of the report.

### **Deficiencies in System Development**

Despite having followed acceptable system development methodologies, decisions made by the Department caused project delays, which resulted in the system not being complete to date. Specifically, 24 of 106 system functions are not operational (see Appendix for a list of operational and non-operational system functions). The delays are directly attributable to the Department's decision not to employ a quality assurance consultant at the start of the project; not to assign a full-time manager to the project until one year after the Department first recognized the need for a full-time manager; and, to change the system development methodology it was following during the 3<sup>rd</sup> quarter of 1998—at least two years after the advanced planning document for the system was prepared.

***HRA Response:*** “We agree that all acceptable system development methodologies were followed, but disagree that POS is incomplete because 24 of the 106 system functions are not operational. The auditors made a determination of system completeness by using a listing of functions from a Memorandum on Understanding (MOU) document executed on July 19, 1999. Specifically, of the functions marked incomplete, four have been completed but not marked as such by the auditors, or were category headings that were incorrectly counted as incomplete functions. In addition 15 functions were removed from the project scope because of policy changes or program decisions to reprioritize functionalities.”

“Two of the items listed as incomplete have nothing to do with the system development delays. The access to the three external databases can only be achieved if the other Agencies are willing to sign MOUs giving HRA access to their data. We will continue to negotiate these MOUs. The preparation of ‘E’ checks for the Distribution and Collections module was removed from the scope. Consequently, the assertion in the audit report that POS’ incompleteness is due to HRA’s quality assurance decisions, project management and mid-project changes to system development methodology, when only 5 of 106 listed functionalities were incomplete is unbalanced.”

***Auditor Comment:*** In response to our inquires during audit work, Department officials confirmed the validity of the Memorandum of Understanding as the source document for



stipulating system functions. We assert that the Department's decision to remove 15 functions from the project's scope—without revising the terms of the contract—is tantamount to the functions' not being operational. Moreover, two of the items that we maintain are not completed (i.e., "forwarding of electronic grant authorization" and "HPD and NYCHA file matches"), are listed in documentation contained in the Department's files as being only "partially completed" and therefore not operational. In addition, our review of documentation indicates that the function for "automated preparation of 'E' checks" was not removed from the project scope as the Department contends. Insofar as access to external agency databases is concerned, we note that although the project commenced nine years ago, HRA has still not negotiated agreements with the appropriate agencies to enable this item to be completed. Finally, HRA fails to point out that four items (i.e., earned income cases, unearned income cases, MAPPER, and NYCWAY results, and the ability to produce deferral documents) were not completed until after our audit work concluded.

### **Quality Assurance Consultant Not Engaged at Start of Project**

Directive #18 states that agencies should, "for very large and/or highly critical projects, engage an independent quality assurance consultant to assist the agency monitor and review the work of the development and integration team." However, although the State's Family Independence Administration provided some early quality assurance consulting to the project, the Department did not engage a quality assurance consultant until April 1999, and that consultant—the Gartner Group—was only to perform limited quality assurance reviews of the system. The Gartner Group issued a *Technical Assessment of the Paperless Office System* in December 1999; however, Department files did not contain any evidence that subsequent quality assurance reviews were performed. Obviously, the intent of Directive 18 is for continuous quality assurance since the development of such mission critical systems is expensive, time consuming, and resource intensive.

**HRA Response:** "We disagree with this finding. Directive #18 is a guideline, which provides an overview of tools and techniques for the management of information processing systems. It does not mandate any specific tool such as an outside quality assurance consultant. Further, Directive # 18 did not include the requirement for a quality assurance consultant until it was revised as of June 29, 1998. This is well after the inception of the POS project. The auditor is attempting to hold HRA accountable for complying with a standard retroactively. HRA has employed and continues to employ a number of quality assurance methodologies in POS including but not limited to the separation of functions between the user, the design team, the development team, and the test team; the separation of systems environments including production and testing; the documentation of the changes to the production environment in PETS (POS Enhancement Tracking System) and the biweekly Prioritization Meetings between MIS and the program staff to oversee and monitor the entire development and production migration process."

**Auditor Comment:** The Department is correct in asserting that Directive 18's quality assurance provisions did not become effective until after the inception of the POS project. However, it has long been industry practice for projects of this type to be overseen by quality assurance consultants. In fact in 1989, KPMG, the City's external auditor, recommended that the City establish a quality assurance group to oversee system

development projects. In any event, the Department should have employed a quality assurance consultant when it procured additional POS contracts after the current Directive was issued to ensure that technical requirements and specifications were necessary, accurate, and complete and a more timely completion of this very costly project.

### **Full-Time Project Manager Not Employed at Start of Project**

The Department did not assign a full-time manager to the project until October 1997, one year after it recognized the need for such a full-time manager. Then, this manager was replaced after 18 months. Directive 18 states that using “an experienced project manager to oversee and coordinate the process” can help agencies ensure that their system development projects are successfully completed. The Department’s development files did not include system testing results, user-acceptance certificates and corresponding acceptance criteria, and a complete project management log. Moreover, the project management log shows that significant portions of the system were implemented before testing was successfully completed. Had a knowledgeable full-time manager been assigned to the project since the first day of development, these critical items would most likely not be missing from the files and the project would be further along toward completion.

**HRA Response:** “We disagree with this finding. POS has always had an identified full time project manager. Due to changes in personnel, more than one individual has served in this function.

“POS was initiated by the Mayor’s Office of Operation (MOO) in 1995. The project was jointly managed by Tyra Liebmann from (MOO) and Dennis Fecci from HRA/FIA. Early in 1996 programming began on a proof of concept (POC). This was completed by the end of that year.

“A Value Engineering (VE) study was conducted by OMB in early 1997. One of the major recommendations of this study was that a full-time project manager be hired to run the project with no other distracting responsibilities. In the Summer of 1997 Dennis Fecci became the Deputy Commissioner for MIS. He took the POS project with him, and POS became an official HRA/MIS project. MOO ceased to be involved in project management. Late in 1997 Anna Stern was hired by Dennis Fecci, reporting directly to him, to be the POS project manager. She continued in this capacity until the end of 1998 when she took another assignment. She was replaced by Amy Petersen, who ran the project until the Fall of 2000. At that time Mickey Giambattista took over the assignment until his retirement at the end of February. POS is currently managed by Al Zeltman of MIS.

“As described earlier, system testing and user acceptance records are included in PETS which has been in place since 1998.”

**Auditor Comment:** The Department’s response appears to corroborate rather than negate our finding that a full-time project manager was not assigned to the project from its inception. Clearly, the Department’s citation of a 1997 value engineering study, which recommended the employment of a full-time project manager “with no other distracting

responsibilities” contradicts the Department’s assertion that “POS has always had an identified full time project manager.” Dennis Fecci, whom the Department contends was a joint manager of the project before 1997, had in fact requested that the Department employ a full-time project manager. However, the Department rejected this request in October 1996.

### **Change in System Development Methodology**

The problems encountered in developing the system were exacerbated by the Department’s decision to change system development methodologies in mid-stream. While both methodologies are acceptable, changing from an “intensive cyclical prototyping process,” which relies on client participation to a more “structured and traditional methodology” in which software is developed in accordance with standard specifications, resulted in certain client needs being neglected, as indicated by the results of our user survey. There was nothing in the Department’s files documenting the rationale or the justification for this change.

**HRA Response:** “We disagree with this finding. The users who responded to this simple questionnaire, 2% of the population or 76 of circa 3,000 users, do not reflect overall user satisfaction for POS and therefore should not have been used to draw or support any overall conclusions regarding the system satisfaction or deficiency. Further the auditors report confirms that each methodology used is acceptable. Therefore, the audit implication that the development team stopped relying on client participation which ‘resulted in certain client needs being neglected’ is incorrect. The team conducts numerous periodic forums in which the FIA management provides feedback on POS.”

**Auditor Comment:** Nearly half of the 95 users that responded to our survey were Department case managers as well as a director, all of whom reported problems with the system. Surely this population of users has significant familiarity with the system’s strengths and weaknesses. Therefore, we maintain that their responses are a valid basis from which to draw our conclusions about the system’s performance.

Finally, Department officials apparently misunderstood our finding that problems in system development resulted from the *change* in methodologies—and not from the specific methodologies themselves.

### **Recommendations**

To ensure that the system meets the Department’s business and operating needs, the Department should:

1. Complete and make operational all missing functional items including all computer links identified in this report.

**HRA Response:** “We disagree with this recommendation. As previously stated in our response to Finding #1 above, 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.”

**Auditor Comment:** As previously discussed, we are pleased that the Department has finally completed four of the 24 unfinished POS functions. However, the Department must make operational the five functional items that it acknowledges are still incomplete. Moreover, Department’s elimination of 15 items (representing 14 percent of the items listed in the original scope of work) without any corresponding reductions in the contract amounts further leads us to question the management of this project and the costs associated with this very expensive system.

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.

**HRA Response:** “We agree with this recommendation. Testing results and corresponding acceptance criteria are currently incorporated in PETS.”

3. Successfully complete testing before implementing all subsequent portions of the system.

**HRA Response:** “We agree with this recommendation. Testing results and corresponding acceptance criteria are currently incorporated in PETS.”

To ensure that the problems identified in this report are corrected and do not beset future development projects, the Department should:

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

**HRA Response:** “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.”

### **System Procurement**

The Department stated that it expended approximately \$47 million on POS’ development—\$26 million on 11 consulting contracts, \$14 million for personal services of Department personnel, and \$7 million on system hardware. We found 17 other contracts totaling \$15.9 million where the Department spent money on POS development. However, since these other contracts also included other system development projects and did not break out costs by

project, we could not ascertain the amounts directly attributable to POS. In addition, although we found these 17 contracts independently, we cannot be reasonably assured of having obtained all contracts related to POS development. For these reasons we cannot determine the total amount that the Department has expended on POS development.

Although we determined that five of the 11 consulting contracts and all of the 17 other contracts were appropriately procured, the procurement files for the remaining six contracts were missing documentation that we needed to evaluate whether the purchases conformed with applicable City Charter provisions and PPB Rules. The missing documentation included pre-solicitation reviews, specifications, contracts, and Vendex questionnaires. The lack of this documentation means that we cannot fully determine whether these contracts were properly awarded on a competitive basis, and whether City funds were appropriately expended.

**HRA Response:** “We disagree with this finding. HRA provided the information requested by the auditors on POS costs and contracts related to POS development. HRA reviewed the 17 additional consultant contracts that the auditors identified as being related to POS development and found that most of the contracts broke out costs by project. We also found that most of these contracts are not for development staff, but primarily for LAN/WAN staff as well as trainer and testing staff. Of these 17 contracts, only one, for Energetica totaling \$260,820, is for a POS developer.

“In addition, the auditors reviewed the files of the six contracts that they had stated did not contain certain documents on February 4, 2005. They concluded that these files were complete and appropriate. Consequently, the finding is incorrect.”

**Auditor Comment:** The Department has not provided any documentation to support its contention that only one of the 17 additional contracts identified by the auditors pertains to POS. Moreover, we continue to maintain that the additional contracts contain costs for items that are integral to POS development such as local and wide area network components, testing, and training. As stated in the report, since these contracts included POS as well as other system development projects and did not break out costs by project, we could not ascertain the amounts directly attributable to POS. Therefore, we still cannot determine the total amount that the Department has expended on POS development.

In addition, contrary to the Department’s response, the files for the six contracts lacked important documentation, including pre-solicitation reviews, solicitations, contracts, and Vendex questionnaires. None of these documents was provided at the exit conference or with the Department’s response. Consequently, we remain unable to ascertain whether the Department followed City procurement rules when it awarded these contracts.

### **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.

**HRA Response:** “As stated above, HRA’s contract files are complete and appropriate.

### **Inadequate Disaster Recovery Plan**

The Department’s overall disaster recovery plan is not adequate to ensure that critical agency operations can be restored in the event of a disaster; and it lacks various components stipulated in Directive 18, §10.3. Specifically, the plan does not describe the steps the agency will take to determine whether an event warrants plan invocation, the details about assigning responsibilities to necessary parties, and a listing of priorities for reinstating the system. Directive 18, § 10.0, states that: “A formal plan for the recovery of agency operations and the continuation of business after a disruption due to a major loss of computer processing capability is an important part of the information protection plan.” In addition, Directive 18 states that “periodic reviews and updates are necessary to insure that the business recovery plan remains current. A comprehensive test should be conducted annually.” In addition, the Department has not incorporated POS into its overall disaster recovery plan.

As early as December 1999, the Department was advised that it needed to develop disaster recovery plans for POS by the Gartner Group, a vendor contracted by the Department to assess system technology, architecture, design, and implementation. The lack of a comprehensive disaster recovery plan is critical, since the Department’s ability to effectively provide services to the public is heavily dependent on a functioning system. The Department ignored Directive 18, §10.6, which states that “disaster recovery is an integral part of the overall plan when designing, specifying, and implementing new computer systems” when it developed POS.

**HRA Response:** “HRA disagrees that it’s disaster recovery plan is inadequate to ensure that critical computer operations can be restored in the event of a disaster and that it ignored Directive 18, 10.6 which states that ‘disaster recovery is an integral part of the overall plan when designing, specifying, and implementing new computer systems.’ The POS application was designed with recovery as a priority as evidenced by the replication of data in two locations, one on the local server the other on the core server. Further, HRA has demonstrated that it has effective and efficient recovery plans for POS and other critical systems throughout the agency . . .

“In our continuing efforts to improve, we have been installing the Veritas suite of backup and recovery software at all POS sites. Once fully implemented, this software will further enhance HRA’s disaster recovery plan.”

**Auditor Comment:** While the Department’s response provides details about its disaster recovery plan, the response fails to address the report’s finding that the plan lacks items required by Directive 18. Some of these items include the specific conditions that need to exist to declare an event a disaster, details about assigning responsibilities to necessary parties, and a list of priorities for reinstating the Department’s numerous system applications. These items are critical for ensuring that the system can be restored in the event of a disaster.

## **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.

**HRA Response:** “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.”

## **Other Issues**

### **User Satisfaction Survey**

#### **Problems with System Performance**

Many users are unsatisfied with the system’s performance. We found that 76 percent of users who responded to our survey would like to see changes made to the system. Some of these changes include: faster response times, increased application availability, standardization of screens and modes of completing action, isolation of errors, better handling of reported problems to the helpdesk, and more frequent training in system use, as shown in the table below.

#### **System Problems and Their Effects on Users**

<b><u>Percent</u></b>	<b><u>Reported Problem</u></b>	<b><u>Effect</u></b>
25	System unavailability (downtime)	Users cannot access system.
45	Inadequate response times	Hinders user progress.
80	Response time prevents transaction completion	User work is delayed.
36	Incomplete transactions occur often	User must resubmit transactions.
55	System contains errors or duplications	System information becomes unreliable.
42	Insufficient reporting features	Reports do not easily reflect desired information.
31	Lack of sufficient training	Users not prepared to operate the system.
32	No access to a user manual	Users have no reference for common questions.
76	Would like to see changes	Users are not satisfied.

**HRA Response:** “We disagree with this finding. The users who responded to this simple questionnaire, 2% of the population or 76 of circa 3,000 users, may not reflect overall user satisfaction for POS and therefore should not have been used to draw or support any overall conclusions regarding the system satisfaction or deficiency. Further the auditors report confirms that each methodology used is acceptable. Therefore, the audit implication that the development team stopped relying on client participation which ‘resulted in certain client needs being neglected’ is incorrect. The team conducts numerous periodic forums in which the FIA management provides feedback on POS.”

**Auditor Comment:** As noted previously, nearly half of the 95 users who responded to our survey were Department case managers as well as a director—a population of users that has significant familiarity with the system’s strengths and weaknesses. Given the fact that our survey indicated a large degree of user dissatisfaction, we question the

effectiveness of the Department’s approach of obtaining feedback exclusively from FIA management.

### **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.

**HRA Response:** “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 . . .”

### **User Accounts Not Adequately Controlled**

The Department does not have written policies and procedures in place to ensure that user accounts are adequately controlled. We found that on the Department’s list of 3,112 user-IDs, there were 244 duplicate user-IDs, 12 IDs had no associated user name, and one ID had been assigned four users. In addition, 643 users had not accessed the system in more than 90 days—451 of these users had not accessed the system in more than 180 days. Finally, 44 of the listed users were not at their specified work sites, were not actually system users, or were deceased.

Directive 18, §8.1.2, states that “user identifications and passwords are among the most widely used and visible forms of access controls. The user identification identifies the individual to the system.” In addition, Directive 18, §8.1.2, states that “active password management includes deactivation of inactive user accounts and accounts for employees whose services have terminated.” Neglecting to delete duplicate and inactive user-IDs and allowing “general purpose” IDs burdens the system with excess information, reduces the system’s response time, and increases the vulnerability of the system to misuse and abuse.

**HRA Response:** “We disagree that we do not have procedures in place to adequately control user IDs and passwords. We had provided the auditors with policies and procedures for tracking and terminating user IDs and passwords. The POS login process requires that Windows, WMS and POS authenticate the user. If any of the three authentications fail, that is, if the POS user does not have a valid Windows user ID/password, a valid WMS User ID/password and a User ID table entry in the POS enrollment table, the user cannot sign into POS. With regard to the POS enrollment table, this table may have multiple ID entries because workers can work at more than one POS location such as after regular working hours either during over time on weekdays and on weekends. It should be noted that entries to this table in no way impact the POS systems response time or burden the system. Concerning IDs without a user name, when a user is added, the programmer creates an ID number, after which the coordinator must add the job function information and the user name. Consequently, at any point in time there will be ID numbers that are awaiting the addition of the identifying information.”

**Auditor Comment:** While the Department contends that the login process will prevent unauthorized access to the system, the Department did not respond to our concerns about



monitoring and reporting security violations. Moreover, although the Department claims to have procedures to control user-IDs and passwords, it did not provide any documentation to explain our finding of numerous instances of duplicate IDs, user accounts without an associated user name, an ID assigned to four users, users who have not accessed POS for more than three months, and deceased users.

Similar problems with user accounts were identified in a September 26, 2003 audit of HRA conducted by the New York State Comptroller's Office (*General and Applications Controls for the Welfare Management System*). Although that audit found problems with the Department's password security and the assignment of user rights, the Department continues not to take appropriate steps to correct these deficiencies.

### **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.

***HRA Response:*** "We agree and have policies in place for tracking and terminating users. In addition, FIA 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 maintain their tables appropriately."

### **Misleading Information in the Mayor's Management Report**

The MMR, which is required under the City Charter, is the only citywide document that sets forth goals, objectives, and outcomes for services provided for the dollars expended. As such, it must be thorough, reliable, and accurate so that the public, as well as City officials, have appropriate information to evaluate City operations. However, much of the information presented in the MMR about POS provides a false impression that the project was progressing on schedule.

The information presented to the public about the system in the Fiscal Years 1994 through 1996 MMRs gave the impression that development of the system was progressing smoothly. In that regard, the Fiscal Year 1996 MMR states, "citywide implementation of the system will begin in February 1997 and be completed in April 1998."

Problems with POS' development were indeed noted in the Fiscal Year 1997 MMR, which acknowledged that "due to continued delays in software development, a limited pilot began operation . . . in 1997." However, there was no further mention of POS' development until the Preliminary Fiscal Year 2000 MMR, which states that the Department continued to develop POS "at other Job Centers beginning in July 2000." The next time the system is mentioned is in the Preliminary Fiscal Year 2002 MMR, which states:

“During the first four months of Fiscal 2002 the Agency implemented the Paperless Office System functions at three additional Job centers for a total of seven centers. By the end of Fiscal year 2002, HRA will implement POS at three additional centers.”

However, there is no mention that POS was expected to be completed by April 1998. In fact, there is no mention of the system in the Fiscal Year 2003 MMR, thereby denying the public complete and reliable information about this costly project. We acknowledge that the format of the MMR was significantly changed for Fiscal Year 2003. However, we noted that other system development projects, which were presumably running smoothly, were discussed in the 2004 MMR, while POS has not been mentioned since 2002.

***HRA Response:*** “While we agree that the MMR is a widely circulated publication on which there is a high degree of public reliance, we do not agree that our submissions provided false impressions but instead gave the most accurate and timely progression of the developing system.”

***Auditor Comment:*** Given the fact that POS has not been mentioned in the MMR since Fiscal Year 2002, we question the Department’s contention that its MMR submissions were accurate and timely. Obviously, a project of this magnitude, for which the Department has already expended more than \$47 million, is of significant public interest. Accordingly, the Department should have continued to provide information for the MMR about the development and implementation of this important system.

### **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 (MOO) with complete and reliable information for inclusion in the MMR as has been done historically.

Attachment A to July 1999 HRA-State Memorandum of Agreement  
POS/Melrose Scope of Functionality

<u>Functionality</u>	<u>Yes</u>	<u>Functionality</u>	<u>Yes</u>
<b>Create an In-Center Referral</b>	X	• Electronic signature where appropriate	X
• Create out-of-center referral	X	<b>Access external databases</b>	—
<b>Annotate a schedule</b>	X	• Vital records	X
<b>Add comment/text to case records</b>	X	• Building data	X
<b>Scan documents</b>	—	• Address verification	X
• Create file	X	• Board of education attendance data	
• File document	X	• DMV motor vehicles	
• Read document	X	• NYCHA & HPD files	
• Browse document	X	• Credit data	
<b>Perform WMS inquiry on POS</b>	—	• Other clearances	X
• Benefit issuance	X	<b>Complete recertification process</b>	—
• Case action history	X	• Access WINRO32 on POS	X
• Demographic data	X	• Automated PREP of recertification	X
• RFI results	X	• Automated scheduling & mailout of appointment letter	X
<b>Save inquiry data in POS</b>	X	• Read CED data	X
• Review POS case data	X	• Complete interview questions & responses	X
<b>Make &amp; document a telephone call</b>	—	• Make eligibility determination	X
<b>Calculate budgets – All budget types</b>	—	• Make appropriate referrals & appointments	X
• Input case, household & individual data	X	• Process case change actions	X
• Perform calculation	X	• Produce appropriate forms and notices with electronic signature capture	X
• Save budget in WMS	X	• Scan documents in to record	X
• Scratchpad	X	• Forward electronic record to Supervisor for review and approval	X
• Earned income cases		<b>QRS Case Workflow</b>	—
• Unearned income cases		• WINRO656 List on POS	
• Special budget types	X	• QRS Clerk Workflow	
<b>Complete applications interview</b>	—	• Review questionnaire	
• Applicant sign consent form	X	• Send second notice	
• Register case in WMS with CIN and registration number	X	• Send packet to Case Manager	
• Review clearances – internal & external	X	<b>WMS report reader</b>	—
• Save budget	X	• TAD	X
• Print forms/notice for applicant	X	• WINRO32	X
• Withdraw application		• Other WINRO's	X
• Complete immediate needs & expedited food stamps interview	X	• MAPPER & NYCWAY Results	

Attachment A to July 1999 HRA-State Memorandum of Agreement  
POS/Melrose Scope of Functionality

• AFIS referral	X	<b>Tickler file &amp; queue management</b>	X
• Produce mandatory referrals MAPPER & NYCWAY and schedule appointments and other referrals	X	<b>Transfer of cases to NPA FS or MAP</b>	X
• Issues appropriate benefits – PA & FS	X	<b>Distributing &amp; collections module (D&amp;C)</b>	—
• Save budget in WMS	X	• Forwarding of electronic grant authorization	
• Produce deferral documents		• Automated preparation of “E” check	
• Change case status	X	<b>Mandatory reports</b>	—
<b>Issues special grants</b>	—	• Automated applications report	X
• EPFT Benefits	X	• Recertification report	X
• Emergency checks	X	• Other mandatory reports	X
• Restricted payments	X	<b>Management reports</b>	—
• Supervisory review and signoff	X	• Customized	X
• Send authorization to WMS	X	• On-demand	X
• Send authorization to D & C – “E” checks	X	<b>Fair hearing module (FH)</b>	—
<b>Process all change actions</b>	—	• Send fair hearing data from FHIS to POS- Date Requested	
• Add/remove individual from PA/FS case	X	• Aid-to-Continue status	
• Change demographic data	X	• Date scheduled	
• Change budget	X	• Electronic FH Packet	
• Process recoupment	X	• Electronic control	
• Supervisory review via POS – all levels of approval	X	<b>CSMS (child support) inquiry</b>	X
• Supervisory sign-off – User Id/Password and electronic signature	X	<b>OES Inquiry (Employment Services)</b>	X
• Workflow to route case actions to appropriate supervisory level	X	<b>Network security</b>	—
<b>RFI data</b>		• Use of userID & password	X
• Read RFI data	X	• Electronic signature	X
• Resolve RFI data	X	• Permanent record of system access	X
<b>Process all computer matches</b>	—	<b>Supervisory review module</b>	X
• Read match material on POS		<b>Welfare reform changes</b>	X
• Enter resolution on POS		<b>Spanish text-forms/notices</b>	X
<b>Produce all notices &amp; forms</b>	—	<b>AFIS Integration</b>	X
• Header data filled from POS	X	<b>Business Rules / Decision Support / Systems Support</b>	X



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VERNA EGGLESTON  
*Administrator/Commissioner*

HOLLY E. BROWN  
*Executive Deputy Commissioner*

March 24, 2005

Mr. Greg Brooks, Deputy Comptroller  
The City of New York  
Office of the Comptroller  
Executive Offices  
1 Centre Street  
New York, New York 10007-2341

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

Dear Mr. Brooks:

We are in receipt of the draft audit report regarding your office's audit of the Development and Implementation of the Paperless Office System by the Human Resources Administration (HRA). While HRA has afforded the auditors every opportunity to understand, clarify and put into context the information in their examination the findings in the resulting draft report do not reflect our discussions. There are several findings that are not drawn on all of the available evidence that was provided; and the few findings that are fair are greatly dwarfed by their contrasts. In addition, though the scope of the audit surrounded the "implementation and development" of POS several of the findings imply current day deficiencies that are not accurate. In particular, there are several misstatements in the summary section of the report that should be clarified:

- **The implementation of POS is in fact complete.** It has been rolled out to all applicable offices as well as some not in the original plan.
- **HRA's disaster recovery plan is adequate and inclusive of POS.** It has been activated and updated several times since the inception of POS and will continue to be augmented for maximum applicability and efficiency.
- **The contracts used in the development and implementation of POS were in fact complete and included all relevant and applicable documentation for the acquisition method used as explained to the auditors.**

- The 76 responding users (2% of total population) to the simple questionnaire do not reflect overall user satisfaction for POS and therefore should not have been used to draw any overall conclusions regarding the system satisfaction or deficiency.
- HRA did provide the auditors with complete documentation of the POS contracts. The scope limitation and subsequent finding does not reflect the fact that HRA provided the auditors with detailed explanations that disqualified the additional contracts that the auditor felt were POS specific but were later proved not to be part of the implementation or development of POS.

Further it should be acknowledged that despite several changes in responsibility for the development of POS it was designed and developed following a formal systems methodology. As evidenced by the continued use and program support of POS it does "meet HRA's initial business and operating requirements". It should also be understood that an application as widely used as POS, should not be defined as "finished" unless in the context of phases. An audit objective seeking to substantiate such a definitive end does not reflect the constant evolution inherent in system implementation. It is relevant to note that the project scope was adjusted during the development cycle to respond to changes in the Federal and State laws and procedures, shifting priorities, and changes in responsibility assignments within the agency.

Following is our detailed response to all of the report's findings and recommendations:

### **Deficiencies in System Development**

#### **Auditor's Finding:**

**Despite having followed acceptable system development methodologies, decisions made by HRA caused project delays, which resulted in the system not being complete to date. Specifically, 24 of 106 system functions are not operational (see Appendix I for a list of operational and non-operational system functions). The delays are directly attributable to HRA's decision not to employ a quality assurance consultant at the start of the project; not to assign a full-time manager to the project until one year after HRA first recognized the need for a full-time manager; and, to change the system development methodology it was following during the 3rd quarter of 1998 – at least two years after the advanced planning document for the system was prepared.**

#### **Agency's Response:**

We agree that all acceptable system development methodologies were followed, but disagree that POS is incomplete because 24 of the 106 system functions are not operational. The auditors made a determination of system completeness by using a listing of functions from a Memorandum of Understanding (MOU) document executed on July 19, 1999. Specifically, of the functions marked incomplete, four have been completed but not marked as such by the auditors, or were category headings that were incorrectly counted as incomplete functions. In addition 15 functions were removed from the project scope because of policy changes or program decisions to reprioritize functionalities. (*See attachment 1*)

Two of the items listed as incomplete have nothing to do with system development delays. The access to the three external databases can only be achieved if the other Agencies are willing to sign MOUs giving HRA access to their data. We will continue to negotiate these MOUs. The preparation of "E" checks for the Distribution and Collections module was removed from the scope. Consequently, the assertion in the audit report that POS' incompleteness is due to HRA's quality assurance decisions, project management and mid-project changes to system

development methodology, when only 5 of 106 listed functionalities were incomplete is unbalanced.

### **Quality Assurance Consultant not engaged at Start of Project**

#### **Auditor's Finding:**

Directive #18 states that agencies should, "for very large and/or highly critical projects, engage an independent quality assurance consultant to assist the agency monitor and review the work of the development and integration team." However, although the State's Family Independence Administration provided some early quality assurance consulting to the project, HRA did not engage a quality assurance consultant until April 1999, and that consultant – the Gartner Group – was only to perform limited quality assurance reviews of the system. The Gartner Group issued a *Technical Assessment of the Paperless Office System* in December 1999; however, HRA files did not contain any evidence that subsequent quality assurance reviews were performed. Obviously, the intent of Directive 18 is for continuous quality assurance since the development of such mission critical systems is expensive, time consuming, and resource intensive.

#### **Agency's Response:**

We disagree with this finding. Directive #18 is a guideline, which provides an overview of tools and techniques for the management of information processing systems. It does not mandate any specific tool such as an outside quality assurance consultant. Further, Directive #18 did not include the requirement for a quality assurance consultant until it was revised as of June 29, 1998. This is well after the inception of the POS project. The auditor is attempting to hold HRA accountable for complying with a standard retroactively. HRA has employed and continues to employ a number of quality assurance methodologies in POS including but not limited to the separation of functions between the user, the design team, the development team, and the test team; the separation of systems environments including production and testing; the documentation of the changes to the production environment in PETS (POS Enhancement Tracking System) and the biweekly POS Prioritization Meetings between MIS and the program staff to oversee and monitor the entire development and production migration process. (*See attachment II*).

### **Full-time Project Manager not employed at Start of Project**

#### **Auditor's Finding:**

HRA did not assign a full-time manager to the project until October 1997, one year after it recognized the need for such a full-time manager. Then, this manager was replaced after 18 months. Directive 18 states that using "an experienced project manager to oversee and coordinate the process" can help agencies ensure that their system development projects are successfully completed. HRA's development files did not include system testing results, user-acceptance certificates and corresponding acceptance criteria, and a complete project management log. Moreover, the project management log shows that significant portions of the system were implemented before testing was successfully completed. Had a knowledgeable fulltime manager been assigned to the project since the first day of development, these critical items would most likely not be missing from the files and the project would be further along toward completion.

#### **Agency's Response:**

We disagree with this finding. POS has always had an identified full time project manager. Due to changes in personnel, more than one individual has served in this function.

POS was initiated by the Mayor's Office of Operations (MOO) in 1995. The project was jointly managed by Tyra Liebmann from (MOO) and Dennis Fecci from HRA/FIA. Early in 1996 programming began on a proof of concept (POC). This was completed by the end of that year.

A Value Engineering (VE) study was conducted by OMB in early 1997. One of the major recommendations of this study was that a full-time project manager be hired to run the project with no other distracting responsibilities. In the Summer of 1997 Dennis Fecci became the Deputy Commissioner for MIS. He took the POS project with him, and POS became an official HRA/MIS project. MOO ceased to be involved in project management. Late in 1997 Anna Stern was hired by Dennis Fecci, reporting directly to him, to be the POS project manager. She continued in this capacity until the end of 1998 when she took on another assignment. She was replaced by Amy Peterson, who ran the project until the Fall of 2000. At that time Mickey Giambattista took over the project until his retirement at the end of February. POS is currently managed by Al Zeltman of MIS.

As described earlier, system testing and user acceptance records are included in PETS which has been in place since 1998.

#### **Change in System Development Methodology**

##### **Auditor's Finding:**

**The problems encountered in developing the system were exacerbated by HRA's decision to change system development methodologies in mid-stream. While both methodologies are acceptable, changing from an "intensive cyclical prototyping process," which relies on client participation to a more "structured and traditional methodology" in which software is developed in accordance with standard specifications, resulted in certain client needs being neglected, as indicated by the results of our user survey. There was nothing in HRA's files documenting the rationale or the justification for this change.**

##### **Agency's Response:**

We disagree with this finding. The users who responded to this simple questionnaire, 2% of the total population or 76 of circa 3,000 users, do not reflect overall user satisfaction for POS and therefore should not have been used to draw or support any overall conclusions regarding the system satisfaction or deficiency. Further the auditors report confirms that each methodology used is acceptable. Therefore, the audit implication that the development team stopped relying on client participation which "resulted in certain client needs being neglected" is incorrect. The team conducts numerous periodic forums in which the FIA management provides feedback on POS

To ensure that the system meets HRA's business and operating needs, HRA should:

##### **Recommendation #1:**

**Complete and make operational all missing functional items including all computer links identified in this report.**

##### **Agency's Response:**



We disagree with this recommendation. As previously stated in our response to Finding # 1 above, 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.

**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.**

**Agency's Response:**

We agree with this recommendation. Testing results and corresponding acceptance criteria are currently incorporated in PETS.

**Recommendation #3:**

**Successfully complete testing before implementing all subsequent portions of the system.**

**Agency's Response:**

We agree with this recommendation. Testing results and corresponding acceptance criteria are currently incorporated in PETS.

To ensure that the problems identified in this report are corrected and do not beset future development projects, HRA should:

**Recommendation #4:**

**Employ an independent quality-assurance consultant to over see and monitor the entire development process from its inception.**

**Agency's Response:**

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.

**System Procurement**

**Auditor's Finding:**

HRA stated that it expended approximately \$47 million on POS' development -- \$26 million on 11 consulting contracts, \$14 million for personal services of HRA personnel, and \$7 million on system hardware. We found 17 other contracts totaling \$15.9 million where HRA spent money on POS development. However, since these other contracts also included other system development projects and did not break out costs by project, we could not ascertain the amounts directly attributable to POS. In addition, although we found these 17 contracts independently, we cannot determine the total amount that HRA has expended on POS development.

Although we determined that five of the 11 consulting contracts and all of the 17 other contracts were appropriately procured, the procurement files for the remaining six contracts were missing documentation that we needed to evaluate whether the purchases

conformed with applicable City Charter provisions and PPB rules. The missing documentation included pre-solicitation reviews, specifications, contracts, and Vendex questionnaires. The lack of this documentation means that we cannot fully determine whether these contracts were properly awarded on a competitive basis, and whether City funds were appropriately expended.

**Agency's Response:**

We disagree with this finding. HRA provided the information requested by the auditors on POS costs and contracts related to POS development. HRA reviewed the 17 additional consultant contracts that the auditors identified as being related to POS development and found that most of the contracts broke out costs by project. We also found that most of these contracts are not for development staff, but primarily for LAN/WAN staff as well as trainer and testing staff (*See attachment III*). Of these 17 contracts, only one, for Energetica totaling \$260,820, is for a POS developer.

In addition, the auditors reviewed the files of the six contracts that they had stated did not contain certain documents on February 4, 2005. They concluded that these files were complete and appropriate. (*See attachment IV*) Consequently, the finding is incorrect.

**Recommendation #5:**

HRA 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, contract registrations, in accordance with PPB rules.

**Agency's Response:**

As stated above, HRA's contract files are complete and appropriate.

**Inadequate Disaster Recovery Plan**

**Auditor's Finding:**

HRA's overall disaster recovery plan is not adequate to ensure that critical agency operations can be restored in the event of a disaster; and it lacks various components stipulated in Directive 18, 10.3. Specifically, the plan does not describe the steps the agency will take to determine whether an event warrants plan invocation, the details about assigning responsibilities to necessary parties, and a listing of priorities for reinstating the system. Directive 18, 10.0 states that: "A formal plan for the recovery of agency operations and the continuation of business after a disruption due to a major loss of computer processing capability is an important part of the information protection plan." In addition, Directive 18 states that "periodic reviews and updates are necessary to insure that the business recovery plan remains current. A comprehensive test should be conducted annually." In addition, HRA has not incorporated POS into its overall disaster recovery plan.

As early as December 1999, HRA was advised that it needed to develop disaster recovery plans for POS by the Gartner Group, a vendor contracted by HRA to assess system technology, architecture, design, and implementation. The lack of a comprehensive disaster recovery plan is critical, since HRA's ability to effectively provide services to the public is heavily dependent on a functioning system. HRA ignored Directive 18, 10.6, which states that "disaster recovery is an integral part of the overall plan when designing, specifying, and implementing new computer systems" when it developed POS.

**Agency's Response:**

HRA disagrees that its disaster recovery plan is inadequate to ensure that critical computer operations can be restored in the event of a disaster and that it ignored Directive 18, 10.6 which states that "disaster recovery is an integral part of the overall plan when designing, specifying, and implementing new computer systems". The POS application was designed with recovery as a priority as evidenced by the replication of data in two locations, one on the local server the other on the core server. Further, HRA has demonstrated that it has effective and efficient recovery plans for POS and for other critical systems throughout the agency. The backup and recovery plan for POS was provided to the auditors during the audit. HRA's plan ensures that the POS application can be restored in the event of a disaster. The plan includes a call listing of who to contact for various types of emergencies. The plan also includes backup procedures that are followed to ensure that service would continue in the event of systems problems. Specifically, all POS local and core sites are backed up. The local sites are backed up daily. Archive logs are not removed until they are backed up correctly on two separate cartridges. Besides, the archive logs are File Transferred (FTP) off-site to a SUN UNIX box at MIS. Also, the tapes are off-sited to MIS by messenger daily. This ensures recoverability. This ability to maintain and preserve data was demonstrated by HRA during the Blackout of 2003 when there was a massive power failure throughout the Northeastern United States. There were no adverse effects to our system or data during this crisis. HRA also has a backup site at the training facility located at 210 Livingston Street in Brooklyn.

In our continuing efforts to improve, we have been installing the Veritas suite of backup and recovery software at all POS sites. Once fully implemented, this software will further enhance HRA's disaster recovery plan.

**Recommendation #6:**

**HRA should establish a comprehensive agency-wide disaster recovery plan in accordance with applicable provisions of Directive 18 and incorporate POS into the plan.**

**Agency's Response:**

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.

**Other Issues**

**User Satisfaction Survey - Problems with System Performance**

**Auditor's Finding:**

**Many users are unsatisfied with the system's performance. We found that 76 percent of users who responded to our survey would like to see changes made to the system. Some of these changes include: faster response times, increased application availability, standardization of screens and modes of completing action, isolation of errors, better handling of reported problems to the helpdesk and more frequent training in system use.**

**Agency's Response:**

We disagree with this finding. The users who responded to this simple questionnaire, 2% of the total population or 76 of circa 3,000 users, may not reflect overall user satisfaction for POS and therefore should not have been used to draw or support any overall conclusions regarding the

system satisfaction or deficiency. Further the auditors report confirms that each methodology used is acceptable. Therefore, the audit implication that the development team stopped relying on client participation which “resulted in certain client needs being neglected” is incorrect. The team conducts numerous periodic forums in which the FIA management provides feedback on POS.

**Recommendation #7:**

**HRA should ensure that the user concerns identified in the report are addressed. In this regard, HRA should work towards shortening system response times, increasing application availability, standardizing screens and modes of completion action, isolating errors, improving handling of reported problems by the help desk, and providing more frequent training.**

**Agency's Response:**

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. For example, MIS and FIA are constantly working to upgrade system and network response time and overall performance. During 2004, MIS installed additional redundant network cables in order to prevent system outage. MIS also continues to upgrade its Network Operations Center (NOC) facility. The POS Help Desk was bolstered resources to respond more readily to user problems. A weekly outage report was created to notify MIS, FIA and other entities of ongoing and recurring issues, so that they may be resolved expeditiously. We also provide on-going POS training to staff, at which time user manuals are issued to the attendees. This is an area of ongoing focus.

**User Accounts Not Adequately Controlled**

**Auditor's Finding:**

**HRA does not have written policies and procedures in place to ensure that user accounts are adequately controlled. We found that on HRA's list of 3,112 user Ids, there were 244 duplicate user Ids, 12 Ids had no associated user name, and one ID had been assigned four users. In addition, 643 users had not accessed the system in more than 90 days – 451 of these users had not accessed the system in more than 180 days. Finally, 44 of the listed users were not at their specified work sites, were not actually system users, or were deceased.**

**Directive 18, 8.1.2 states that “user identifications and passwords are among the most widely used and visible forms of access controls. The user identification identifies the individual to the system.” In addition, Directive 18, 8.1.2 states that “active password management includes deactivation of inactive user accounts and accounts for employees whose services have terminated.” Neglecting to delete duplicate and inactive user-Ids and allowing “general purpose” Ids burdens the system with excess information, reduces the system's response time, and increases the vulnerability of the system to misuse and abuse.**

**Agency's Response:**

We disagree that we do not have procedures in place to adequately control user IDs and passwords. We had provided the auditors with policies and procedures for tracking and terminating user IDs and passwords. The POS login process requires that Windows, WMS and POS authenticate the user (*See attachment V*). If any of the three authentications fail, that is, if

the POS user does not have a valid Windows User ID/password, a valid WMS User ID/password and a User ID table entry in the POS enrollment table, the user cannot sign into POS. With regard to the POS enrollment table, this table may have multiple ID entries because workers can work at more than one POS location such as after regular working hours either during over time on weekdays and on weekends. It should be noted that entries to this table in no way impact the POS systems response time or burden the system. Concerning IDs without a user name, when a user is added, the programmer creates an ID number, after which the coordinator must add the job function information and the user name. Consequently, at any point in time there will be ID numbers that are awaiting the addition of the identifying information.

**Recommendation #8:**

**HRA should develop written policies and procedures for tracking system users and terminating inactive user-Ids. In addition, HRA should periodically review the status of inactive user accounts and terminate access, where appropriate.**

**Agency's Response:**

We agree and have policies in place for tracking and terminating users. In addition, FIA 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 that Job Center staff maintain their tables appropriately.

**Misleading Information in the Mayor's Management Report**

**Auditor's Finding:**

The MMR, which is required under the City Charter, is the only citywide document that sets forth goals, objectives, and outcomes for services provided for the dollars expended. As such, it must be thorough, reliable, and accurate so that the public, as well as City officials, has appropriate information to evaluate City operations. However, much of the information presented in the MMR about POS provides a false impression that the project was progressing on schedule.

The information presented to the public about the system in the Fiscal Years 1994 through 1996 MMRs gave the impression that development of the system was progressing smoothly. In that regard, the Fiscal Year 1996 MMR states, "citywide implementation of the system will begin in February 1997 and be completed in April 1998."

Problems with POS' development were indeed noted in the Fiscal Year 1997 MMR, which acknowledged that "due to continued delays in software development, a limited pilot began operation ... in 1997." However, there was no further mention of POS' development until the Preliminary Fiscal Year 2000 MMR, which states that HRA continued to develop POS "at other Job Centers beginning in July 2000." The next time the system is mentioned is in the Preliminary Fiscal Year 2002 MMR, which states:

**"During the first four months of Fiscal 2002 the Agency implemented the Paperless Office System functions at three additional Job centers for a total of Seven centers. By the end of Fiscal year 2002, HRA will implement POS at three Additional centers...."**

However, there is no mention that POS was expected to be completed by April 1998. In fact, there is no mention of the system in the Fiscal Year 2003 MMR, thereby denying the

public complete and reliable information about this costly project. We acknowledge that the format of the MMR was significantly changed for Fiscal Year 2003. However, we noted that other system development projects, which were presumably running smoothly, were discussed in the 2004 MMR, while POS has not been mentioned since 2002.

**Agency Response:**

While we agree that the MMR is a widely circulated publication on which there is a high degree of public reliance, we do not agree that our submissions provided false impressions but instead gave the most accurate and timely progression of the developing system.

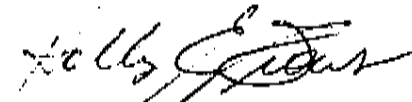
**Auditor's Recommendation #9:**

**HRA should ensure that it provides complete and reliable information to the Mayor's Office of Operations for inclusion in the MMR.**

**Agency's Response:**

We agree with the concept of this finding and will continue to provide the Mayor's Office of Operations (MOO) with complete and reliable information for inclusion in the MMR as has been done historically.

Sincerely,



Holly E. Brown

C: Commissioner Verna Eggleston  
Patricia M. Smith  
Richard O'Halloran

Attachment I – Matrix – Deficiencies in System Development

POS AUDIT RESPONSE - Finding #1 Attachment

MOU No.*	Functionality	Auditor Status	HRA Status**	Date Implemented***
1	Create an In-Center Referral	X	X	
a)	Create out-of Center referral	X	X	
2	Annotate a schedule	X	X	
3	Add Comment/Text to Case record	X	X	
4	Scan documents	---	---	
a)	Create file	X	X	
b)	File document	X	X	
c)	Read document	X	X	
d)	Browse document	X	X	
5	Perform WMS inquiry in POS	---	---	
a)	Benefit issuance	X	X	
b)	Case action history	X	X	
c)	Demographic data	X	X	
d)	RFI results	X	X	
6	Save inquiry data in POS - POS can save a screen from WMS as part of the case record.	X	X	
a)	Review POS case data	X	X	
7	Make & Document a telephone call – MIS & FIA no longer plan to connect phone services directly to POS. Modems were banned in 2002. Documenting phone calls is completed in case comments.		Pulled	Feb-02
8	Calculate budgets - all budget types	---	---	
a)	Input case, household & individual data	X	X	
b)	Perform calculation	X	X	
c)	Save budget in WMS	X	X	
d)	Scratchpad	X	X	
e)	Earned income cases - Budgets for cases with earned income can be processed in POS. The answers from the interview question set fill the POS budget windows, which in turn populate the WMS budget window.		X	Jun-97
f)	Unearned income cases – Budgets for cases with unearned income can be processed in POS. The answers from the interview question set fill the POS budget windows, which in turn populate the WMS budget window.		X	Jun-97
g)	Special budget types	X	X	
9	Complete applications interview - This is completed except "withdraw application", which was withdrawn September 2002.	---	---	
a)	Applicant sign consent form	X	X	
b)	Register case (App-Reg) in WMS with CIN and Reg. No.	X	X	
c)	Review clearances - Internal and external	X	X	
d)	Save budget	X	X	
e)	Print forms/notice for applicant	X	X	
f)	Withdraw application – because of a ruling in a court decision in late 1998 (Reynolds v. Giuliani), the number of application withdrawals has been drastically reduced and the functionality is no longer a priority item for FIA. Withdrawn September 2002.		Pulled	Sep-02
g)	Complete immediate needs & expedited FS interview	X	X	
h)	AFIS referral	X	X	

	l)	Produce mandatory Referrals MAPPER & NYCWAY and schedule appointments, and other referrals	X	X	
	j)	Issues appropriate benefits - PA & FS	X	X	
	k)	Save budget in WMS	X	X	
	l)	Produce deferral documents – The deferral form for documentation W-113K "Document Requirements" was added to POS in August 1998. The form is filled by the system when the worker indicates that documentation is needed but not present.		X	Aug-98
	m)	Change case status	X	X	
10		Issues special grants	---	---	
	a)	EPFT benefits	X	X	
	b)	Emergency checks	X	X	
	c)	Restricted payments	X	X	
	d)	Supervisory review and signoff	X	X	
	e)	Send authorization to WMS	X	X	
	f)	Send authorization to D&C - "E" Checks	X	X	
11		Process all change actions - This item is considered complete as all subtasks are completed.	---	---	
	a)	Add/Remove individual from PA/FS case	X	X	
	b)	Change demographic data	X	X	
	c)	Change budget	X	X	
	d)	Process recoupment	X	X	
	e)	Supervisory review via POS - all Levels of approval	X	X	
	f)	Supervisory sign-off - User ID/Password and Electronic Signature	X	X	
	g)	Workflow to route case actions to appropriate supervisory level	X	X	
12		RFI Data - This data is available since July 1998.	---	---	
	a)	Read RFI data	X	X	
	b)	Resolve RFI data	X	X	
13		Process all computer matches – This function is completed by ORI.	---	---	
	a)	Read match material on POS - Function completed by ORI		Pulled	Mar-99
	b)	Enter resolution on POS - Function completed by ORI		Pulled	Mar-99
14		Produce all notices and forms - The last required forms were added in POS with the Nov. 2002 release.	---	---	
	a)	Header data filled from POS	X	X	
	b)	Electronic signature where appropriate	X	X	
15		Access external data bases	---	---	
	a)	Vital records	X	X	
	b)	Building data - POS Version 2 was compiled and released 3/98. It included the Buildings collateral, which contained some HPD data.	X	X	
	c)	Address verification	X	X	
	d)	Board of Education attendance data			
	e)	DMV (Motor Vehicles)			
	f)	NYCHA and HPD files - Subsidized housing collateral match was made available July 2002 for applicants/recipients in NYCHA or HPD housing.		Partial	Jul-02
	g)	Credit data – Available to the Office of Revenue and Investigation through other systems; this function is no longer required in the FIA Job Centers.		Pulled	Mar-99
	h)	Other clearances	X	X	
16		Complete recertification process	---	---	



	a)	Access WINRO32 on POS	X	X	
	b)	Automated Prep of Recertification	X	X	
	c)	Automated scheduling & mailout of appointment letter	X	X	
	d)	Read CED data	X	X	
	e)	Complete interview questions and responses	X	X	
	f)	Make eligibility determination	X	X	
	g)	Make appropriate referrals & appointments	X	X	
	h)	Process case change actions	X	X	
	l)	Produce appropriate forms and notices with electronic signature capture	X	X	
	j)	Scan documents in to record	X	X	
	k)	Forward electronic record to supervisor for review and approval	X	X	
	17	QRS Case Workflow – In November 2001 the policy to report income quarterly was changed by New York State. The POS QRS functionality was no longer required.	---	---	
	a)	WINRO656 List on POS		Pulled	Dec-01
	b)	QRS Clerk Workflow		Pulled	Dec-01
	c)	Review questionnaire		Pulled	Dec-01
	d)	Send second notice		Pulled	Dec-01
	e)	Send packet to case manager		Pulled	Dec-01
	18	WMS Report reader - EVR results and CED worksheets became available in Jan. 1999.	---	---	
	a)	TAD	X	X	
	b)	WINRO32	X	X	
	c)	Other WINRO's	X	X	
	d)	MAPPER & NYCWAY results – A WMS report of appointment outcomes (HWY 700) is read and parsed by case number and is viewable when the case (activity) is opened by the worker.		X	Jan-99
	19	Tickler File & queue management	X	X	
	20	Transfer of cases to NPA FS or MAP	X	X	
	21	Distributing & Collections Module (D&C)	---	---	
	a)	Forwarding of electronic grant authorization - This function is available for Same Day Issuance of Food Stamp grants.		Partial	Nov-04
	b)	Automated preparation of "E" check - This is a complicated transaction involving special WMS processes. FIA did not make this a priority, though it is still slated for completion. "E" checks are printed on only one or two machines in each Center.			
	22	Mandatory Reports - HRA considers that all mandatory reports were completed and released in January 1999.	---	---	
	a)	Automated applications reports	X	X	
	b)	Recertification report	X	X	
	c)	Other mandatory reports - HRA considers that all mandatory reports were completed and released in January 1999.	X	X	
	23	Management Reports	---	---	
	a)	Customized	X	X	
	b)	On-Demand	X	X	
	24	Fair Hearing Module (FH) - This piece was developed in FHMS and was removed from the POS pending list in 2001.	---	---	
	a)	Send Fair hearing data from FHIS to POS - Date requested		Pulled	Jul-01
		Aid-to-continue status		Pulled	Jul-01
		Date scheduled		Pulled	Jul-01
		Electronic FH packet		Pulled	Jul-01
	b)	Electronic Control		Pulled	Jul-01

<b>25</b>	<b>CSMS (Child Support) inquiry</b>	X	X	
a)	OES Inquiry (Employment services)	X	X	
<b>26</b>	<b>Network security</b>	---	---	
a)	Use of User ID & Password	X	X	
b)	Electronic signature	X	X	
c)	Permanent record of system access - POS records all case actions/changes/transactions.	X	X	
<b>27</b>	<b>Supervisory review module</b>	X	X	
<b>28</b>	<b>Welfare Reform – Changes were completed to comply with the 1996-1997 federal laws.</b>	X	X	
<b>29</b>	<b>Spanish text - Forms/notices</b>	X	X	
<b>30</b>	<b>AFIS integration</b>	X	X	
<b>31</b>	<b>Business rules/ Decision support/ Systems support</b>	X	X	

\* Headings are numbered in bold.

\*\* Where **HRA Status** does not agree with **Auditor Status**, a brief description of current status is included under **Functionality**.

\*\*\* Implementation dates are provided for functionalities where **HRA Status** differs from **Auditor Status**.

Attachment II – PETS Detail – Quality Assurance Consultant Not Engaged at Start of Project

**POS AUDIT RESPONSE – Finding # 2 Attachment  
POS Enhancement Tracking System (PETS)**

In 1998, with the POS pilot expanding, thereby exposing more FIA staff and management to POS, a new system had to be developed for logging and tracking client requests and requirements for new functionality. This system would be designed and developed by the POS team and would encompass all other tracking systems in place at that time. The POS Enhancement Tracking System (PETS) was quickly developed and a version of it has been in use since that time.

**Enhancement Prioritization**

At various forums new POS functionality and POS change requests are brought to the attention of members of the POS team. These items are added to PETS and assigned a task number. The status of these tasks is set to 'New Task' at this time. Each task may be associated with a software release and must have a title and a description. Some tasks are broken up into subtasks. The figure below shows a screen shot of the detail visible while editing a task in PETS. PETS is used to record the source of the task and who it is assigned to. The Activity Log shows the history of this data for each task.

View or Edit Task	
Task Number	1542.01
Status	Design in Review
Release	TBD
Title	Recert Prep Changes for RTSC - Separate Queue for Mail-Ins
Main Task Description	Center 052 (RTSC) has two processes for Recertification.
Subtask Description	RTSC has requested that their Mail-In Recerts be loaded into
Source	Rebecca Blanc
Assigned To	Michele Shepard
Comments	041304: Jose sent Spec to Michele
Activity Log	4/13/2004 10:35:31 AM Jose Breton changes to Design in Review, assigns to Michele Shepard 4/13/2004 10:12:15 AM Jose Breton creates new task, assigns to Jose Breton

Screen shot of the POS Enhancement Tracking System details window showing subtask 1542.01. The Activity Log shows that this task was added to PETS at 10:12 AM on 4/13/2004 and then assigned for design review at 10:35 AM. The Activity Log is not editable. Comments can be entered at anytime.

The following is a list of the task statuses that are available in PETS.

- New Task
- Change Request Pending
- Change Request in Initial Review
- Change Request Approved
- Design Assigned
- Design Researching
- Design on Hold
- Design in Review
- Design Approved/Ready Systems Analysis
- Systems Analysis Assigned
- Systems Analysis Researching
- Systems Analysis on Hold
- Systems Analysis in Review
- Systems Analysis Approved/Ready Development
- Development Assigned
- Development Researching
- Development on Hold
- Development in Review
- Development Approved/Ready Test
- Migrated to Test
- Test in Progress
- Test on Hold
- Test Approved/Ready Production
- Migrated to Training
- Migrated to Production
- Cancelled

This list is sorted in the order tasks generally progress during the design, analysis, development, and testing process.

Bi-weekly meetings are held to determine the relative priority of items in PETS and to discuss the status of items for which work has begun. All of the phases of the development life-cycle have representatives at these meetings. The client is represented as are the design, systems analysis, development, testing, training, and implementation teams.

#### **Development Life-Cycle**

After a task is added to PETS, and it is determined to have some priority, it is assigned to the Design Team who will develop requirements or a business specification. The POS Design Team is made up of FIA staff that have been assigned to the team because of their superior work record. They are most knowledgeable in HRA's policies and procedures. It is their responsibility to obtain clearances from FIA management for items that require authorization and to research items that originate from welfare reform or other changes in state and federal regulations.

When the design document is reviewed and approved by the Design Team Lead, the task is assigned to the Systems Analysis Team. This team uses the design document to write a system specification. When that specification is approved by the Systems Analysis Lead it is assigned to a developer to code the task. The specification is shared with the Testing Team to create a plan

for software testing. The specification is also shared with the Training Team so they can develop new, or modify existing training materials.

After the item has been unit tested by the developer(s) working on it and it has been approved by the Development Team Lead it is migrated into the POS testing environment. To the extent possible this environment, although smaller, mirrors the POS production environment. In test POS communicates with the WMS user test environment. Therefore virtually all of the software that operates in the POS production environment can be deployed and tested in the POS testing environment first.

POS testing is done by HRA MIS's Office of Systems Testing and Audit (OSTA). This office tests many applications for HRA including mainframe, web-based, and Windows software. With the system specification available the testing team prepares case scenarios to test POS changes and new functionality. OSTA uses another tracking system to track problems identified during the testing phase of the development life-cycle. All problems that are discovered during OSTA's testing are fully documented and forwarded to the Development Team Lead for remediation. Fixes are made and released back into the test environment for re-testing.

Testing logs and reports are reviewed at bi-weekly status meetings. Tasks must be placed in the status 'Test Approved/Ready Production' by the Testing Team Lead before they can be migrated to the training and production environments. As the scheduled release date approaches the Implementation Team develops release notes from the specifications based on the items that are in 'Test Approved/Ready Production' status.

Attachment III – Initial 17 Contracts - System Procurement  
POS AUDIT- Other Contracts Finding #5  
Attachment

1	Tri-State	20010010585	069-01-210-3048	9/11/2000	2/28/2002	\$2,927,558.70	Bymes, Joseph Nuez, Raymon	POS LAN/WAN POS LAN/WAN	Bob Petito Bob Petito
2	M/ISI	20010020122	069-01-310-3152	3/1/2001	2/28/2003	\$2,524,000.00	No POS consultants	Various Projects Not POS related	
3	Softak	20010020344	069-01-110-3153	3/1/2001	2/29/2003	\$340,000.00	Jegler, Gregg	Business Link Not POS related	Gusto Salicato
4	AMS	20030008948	069-01-110-3056	11/1/2001	10/31/2003	\$4,667,500.00	Zochniak, Zen Rose, Noah	POS Implementation POS (Trainer)	Dorothy Suter Dorothy Suter
5	Energetica	20030016507	069-03-S03-2801	8/1/2002	6/30/2003	\$430,500.00	Carl Last	POS Technical Services	Dorothy Suter
6	Questa	20030019103	069-03-S03-0901	4/15/2003	12/31/2003	\$128,727.50	Mark Scott	POS LAN/WAN	Bob Petito
7	Energetica	20030019481	069-03-S03-0801	4/1/2003	3/31/2004	\$150,423.00	Berger, Larry	POS LAN/WAN	Bob Petito
8	IT Network Consultants	20030019491	069-03-S03-0301	8/6/2002	3/31/2004	\$92,750.00	Buenano, Juan	POS LAN/WAN	Bob Petito
9	IT Resource Solutions	20030019580	069-03-S03-1001	4/1/2003	3/31/2004	\$137,810.00	Bazalar, Victor	POS LAN/WAN	Bob Petito
10	Energetica	20030020127	069-03-S03-1901	4/15/2002	4/14/2004	\$427,500.00	Balsamo, Lorenzo Meritt, Keith	POS LAN/WAN POS LAN/WAN	Bob Petito Bob Petito
11	Information Methods	20030020249	069-03-S03-2201	4/16/2002	4/14/2003	\$897,734.00	Kennedy, Maurice Coplin, Manuel Pereira, Kitson	POS LAN/WAN POS LAN/WAN POS LAN/WAN	Bob Petito Bob Petito Bob Petito
12	Planned Systems	20030022426	069-03-S03-2101	4/15/2002	4/14/2003	\$236,885.00	Florko, Gregory	POS LAN/WAN	Bob Petito
13	IT Network Consultants	20030022724	Capital	5/19/2003	11/17/2004	\$141,750.00	Collins, Pauline	Business Process Analysis	Dorothy Suter
14	SCB (Ciber)	20040002993	069-03-S03-2001	7/1/2003	6/30/2004	\$99,750.00	Barnett, Marvin	POS LAN/WAN	Bob Petito
15	Adil Business Systems, Inc.	20040010747	069-03-S03-2701	3/29/2003	6/30/2004	\$2,468,818.80	Rangiah, Madhu Venkat, Mamatha	POS (Testing) POS (Testing)	V. Krocket V. Krocket
16	Client Solutions	20040012380	069-04-S03-3401	3/21/2003	6/30/2004	\$114,912.00	Murphy, Scott	POS LAN/WAN	Bob Petito
17	Energetica	20040019295 (857-x- 250988)	069-04-210-3016	11/5/2003	6/30/2005	\$260,820.00	Coventry, Stan	POS Development	Mike Elbaz

## **Attachment IV - Additional Contracts - System Procurement**

While the Comptroller's representatives stated on 2/4/05 that the 6 contracts were complete and appropriate, this response is not reflected in the draft audit report. Listed below is OPMM's response to the preliminary and final audit findings.

### **Pre-Solicitation Review Report**

In reference to the six(6) POS New York State backdrop contracts, five(5) of the contracts were initiated prior to November 2002, the date MOCS issued its guidelines on Intergovernmental Procurement. Contract number 20030019605 was awarded to Com/Peripherals on 4/2/02. Although PPB Rules Section 2-02 requires a PSR for all procurements, (except Emergency Purchases), exceeding the Small Purchase limits, Section 3-09 of the same rules does not mention a PSR as one of the required documents for Inter-governmental Procurement method. MOCS current guidelines, still, do not include a PSR as a required document. 3-09 only requires that a determination be made that the price is lower than the prevailing market price, and for procurements above the small purchase limits, approval has been obtained from the ACCO. HRA complied with 3-09 and the contract files include all the documents listed in 3-09 (e). The Comptroller has never advised HRA a PSR was required for New York State contracts and has never refused to register a contract for lack of a PSR.

### **Vendex Questionnaires**

PPB Rules Section 3-09 requires agencies to make an affirmative finding of responsibility regarding the supplier, but it does not require submission of vendex questionnaires by the supplier. However, for all the six contracts, the files show that HRA did an on-line vendex inquiry, vendex questionnaires or affidavits were submitted and DOI memos were issued.

### **Contract**

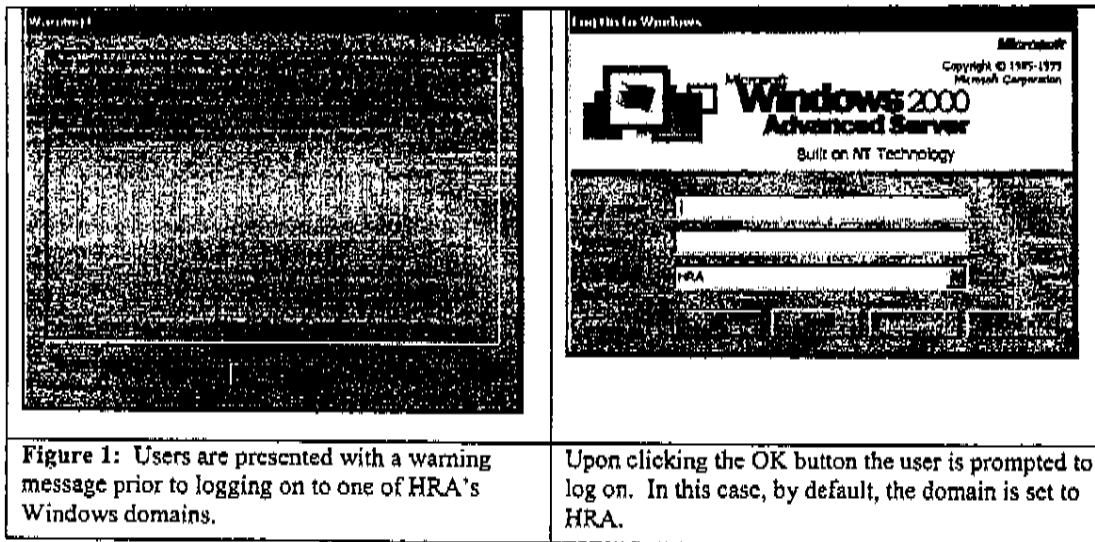
Prior to November 2002, there was no requirement for a contract for intergovernmental procurements. The Comptroller allowed Agencies to issue purchase orders or Advice of Awards to suppliers. HRA has always registered Advice of Awards with the NYC Comptroller against OGS contracts. With the advent of MOCS' guidelines in 2002, HRA continued to comply with the requirement for a contract for OGS procurements.

Attachment V – User Security - User Accounts Not Adequately Controlled

POS AUDIT RESPONSE - Finding # 8 Attachment  
Security

Accessing POS

FIA staff that access POS to perform their casework must first log on to one of HRA's Windows domains. Of course this requires that the user has a valid Windows ID and password and that the computer they are using has an account in the Windows domain (see figure 1).



Once the user has logged on to the Windows domain, they must access an intranet web site and select the POS site in which they have a valid account. From this web site the user is connected to a Citrix server farm that is associated with the POS site they selected (see figure 2). The user must then log on to one of HRA's Windows domain a second time in order to begin a second Windows session on the Citrix server (as seen in figure 1). Users are limited to one Windows session per Citrix server farm.

After successfully logging on to the Citrix server as a domain user the POS SignOn software executes. This software prompts the user to enter their WMS ID and password (see figure 3). The software then uses that WMS ID and a generated password to connect to the POS Oracle database. POS uses generated passwords to prevent anyone from connecting directly to the database using SQL tools.

Once connected to the POS Oracle database the application verifies that the user is attempting to access POS from a PC that is allowed access to POS. Each POS PC is listed in a computer configuration table. This table associates the user's PC with a site and a WMS UNIX Server known as an Aquanta. If the PC is not listed in this table the user will be denied access.

With the WMS Aquanta information the SignOn software begins a scripted terminal emulation session to validate the user's WMS credentials. WMS does not allow a user to have multiple active sessions so if the user's account is already signed on to WMS the second session will be denied access. If the user's WMS credentials are not be validated, they will be denied access to POS.



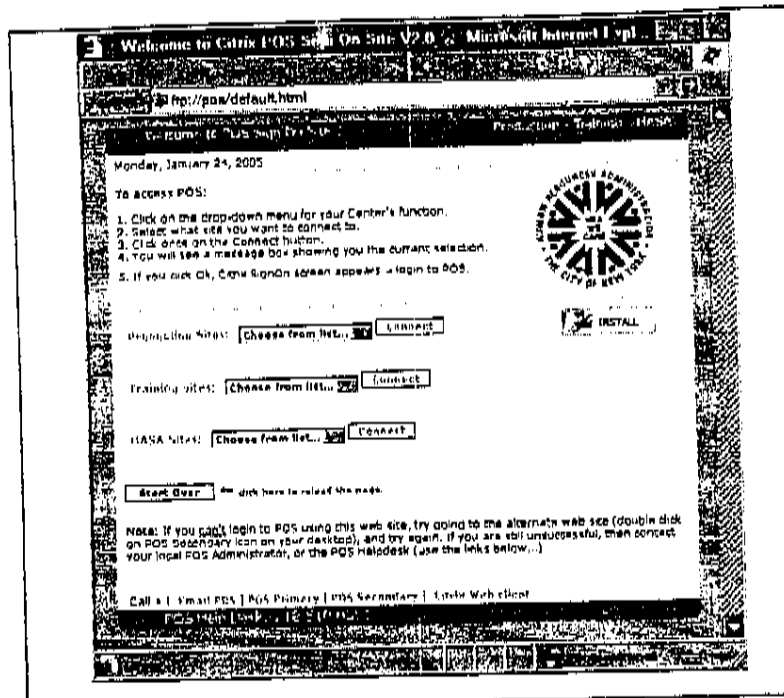


Figure 2: This POS web site is used to gain access to a particular Citrix server farm associated with a particular POS center. The user selects either an FIA production site, a training site, or a HASA site.

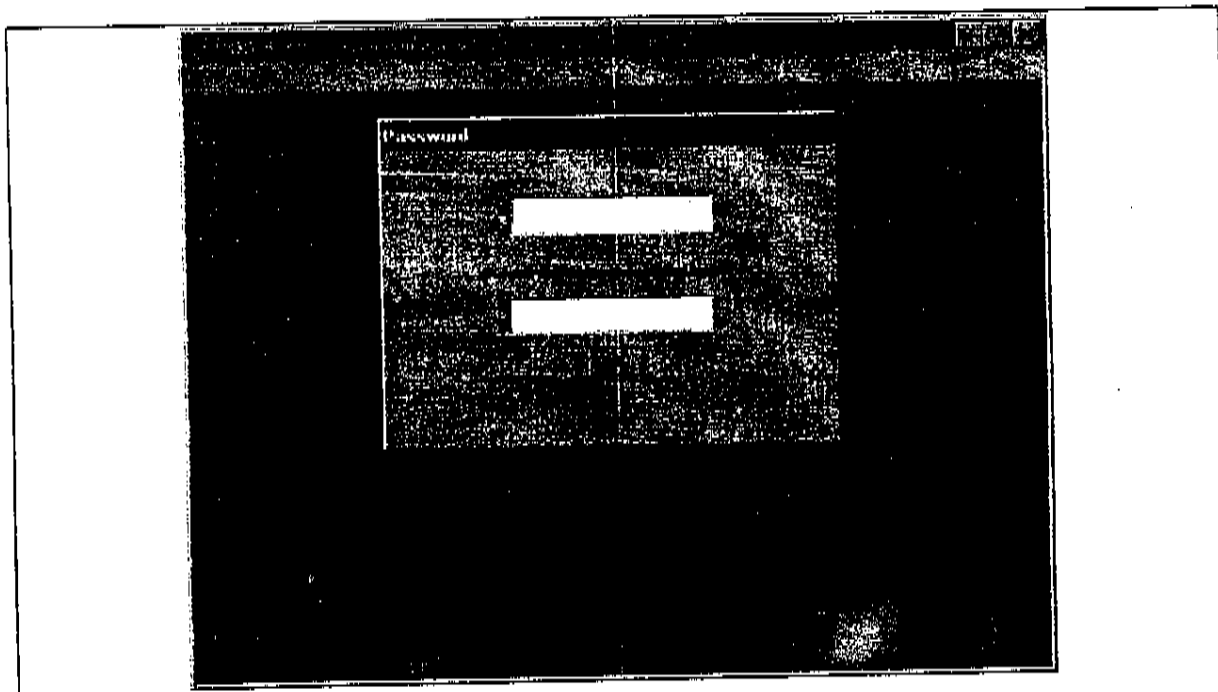


Figure 3: POS SignOn software starts up when a domain user logs on to the POS Citrix server. The user is prompted to enter their WMS ID and password. These WMS credentials are validated against WMS. The functions available to a POS user depend upon what role they are assigned, what site they are associated with, and where they are running POS from (see figure 4).

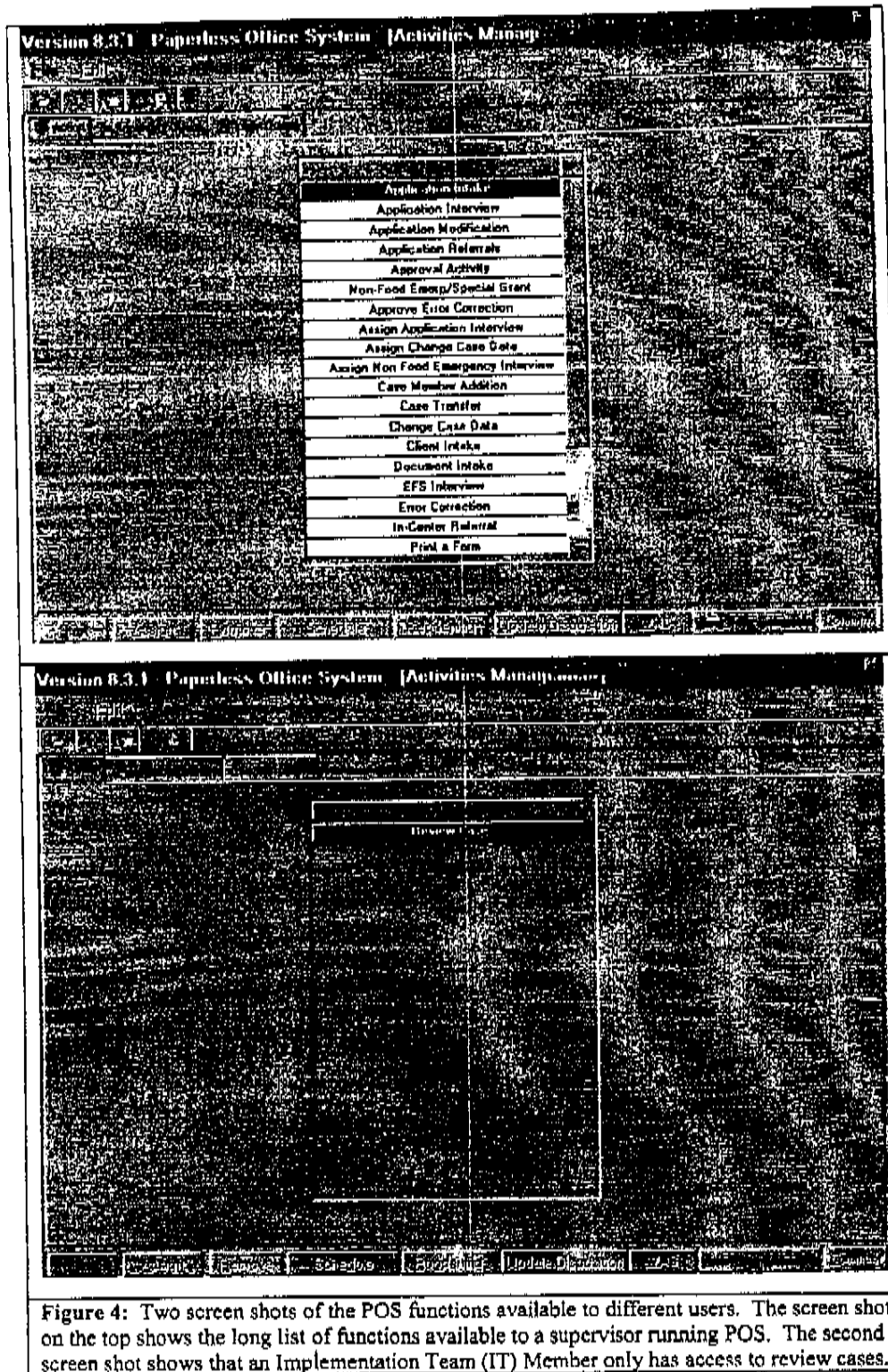


Figure 4: Two screen shots of the POS functions available to different users. The screen shot on the top shows the long list of functions available to a supervisor running POS. The second screen shot shows that an Implementation Team (IT) Member only has access to review cases.

With every attempt to perform an action on a case the following items are verified.

- What site does the case belong to?
- What site is the user associated with?
- From what PC is the user running POS and what site is that PC associated with?
- What action is the user attempting to perform?

A table in the POS databases lists all the roles, sites, and functions allowed by POS users running the application from each site. So, for example, POS Help Desk Analysts are allowed to review all cases from their PCs at all POS sites. In order for this to be the case their Oracle accounts need to exist at each POS site and their PCs must be listed in each sites computer configuration table. Normal users are given Oracle accounts only where they work. In general, therefore, a user only has access to a certain set of functions on cases that belong to their site, while running POS from a PC at their site.

A few users do work at more than one site. They are loaned from one site to another for special projects. These users must also have WMS access at multiple sites. Whatever PCs they access POS from must be listed in the access tables for POS and WMS at the site they are running POS from (that is, they cannot run POS from one site and access another site even though they have valid accounts at each site).

#### Case Action Audit Trail

POS logs each time a case is changed by anyone. Each change is associated with the thype of change, the user that made the change, and a datetime stamp. Under no circumstances can a supervisor approve an action that she/he took part in. While approving case actions supervisors are not allowed to make any changes to the work submitted to them for approval by their staff. They can only approve the changes and transmit them to WMS or disapprove them and send them back to a member of their staff. If they have actually made some kind change to the case POS will not let them approve the action.