2. The **Director of Training** should assess the feasibility of extending the use of UPK to improve the BTP training program, and also see if it can be leveraged for other Authority-wide training needs.

## Management Response

1. The Director of Training stated, "This assessment has already begun. Strategic training is in the beginning phase of conducting a comprehensive inventory of training delivered, material provided and tools on site to support ongoing systems end-user training. An internal end-user self assessment will be developed to query all end users skills on specific tasks. Based on the outcomes a formal plan which includes resource requirements and catch-up training will be published. January 12, 2009."

2. The Director of Training stated, "The Office of Training is currently evaluating the capabilities of UPK and assessing its overall utility. With respect to the BTP core training items for which UPK was initially acquired. The Office of Training has requested developer access for key staff. January 12, 2009."

## Audit Department Follow Up

1. **January 12, 2009** – The Director of Training will send a memo to Internal Audit verifying that a formal training plan has been developed for the Authority.

2. **January 12, 2009** – The Director of Training will send a memo to Internal Audit indicating the current status and long-term plans for UPK.

## Comment 12 – Project Management Was Schedule-Driven

The BTP project was schedule-driven, with insufficient determination if users were ready to use the system, if there was enough time for testing, and if there would be a detrimental impact on scope. Reasons for this focus on schedule include IBM interested on completing milestones because their payments were based on milestone completion and the Authority being focused on meeting its scheduled go-live dates. This focus on meeting the schedule resulted in shortcuts being taken in training, testing, and functional requirement delivery.

On the BTP project, the decision to complete the Payroll module by the (original) Go Live date of December 22, 2007 was made at the cost of other functionality. In April of 2007, when it became obvious that IBM was unilaterally trimming things from scope, an immediate stop should have been placed on the project, new timelines drawn up to ensure all Phase III delivery, and documentation created to pursue potential liquidated damages due to delay.

## Recommendation

The **General Manager/CEO** should direct that guidelines be created for future projects that ensure that they are managed to deliverable completeness and quality, even if this negatively impacts project timelines and/or vendor payments.

## Management Response

The General Manager/CEO stated, "All future projects will be implemented using the approved and published PMO guidelines which address deliverable completeness and quality regardless of timelines or vendor payment schedules."

## Audit Department Follow Up

**No follow-up needed** – Management has indicated that the process will be incorporated into the PMO guidelines.

# Comment 13 – The Authority's Legacy Systems Have not Been Decommissioned

Users seek to eliminate use of legacy systems in an ERP implementation, because continued reliance on legacy systems can cause complications in operations. If links to legacy systems remain, the links must be tested each time there is an upgrade to the ERP software (or third-party software). This extensive testing process complicates and slows implementation of any future software upgrades to new versions.

During the audit, it became obvious that there were not sufficient objectives or plans in place for converting historical data, which necessitates keeping the old legacy systems running and supported to do any kind of historical reporting.

## Recommendation

The **AGM of Technology** should put together an assessment and budget for converting legacy data off of legacy systems. If the budget can be supported, than it should be followed with a transition plan for the conversion of historical records to Oracle.

## Management Response

The AGM of Technology stated, "Determination and solution for these historical records and legacy data will be evaluated during BTP Phase III requirements definition."

**Audit Department Follow Up**

<u>November 28, 2008</u> -The AGM of Technology will send a memo to the Department of Internal Audit verifying that conversion of legacy data is part of the scope for BTP Phase III as presented in the executive summary to the EMT.


# Comment 14 – Legal Was Not in Loop as Changes Were Generated

During the course of conducting the audit, it was brought to the team's attention that the only change order that had been routed through Legal for review and approval (as stipulated in the contract) was the first change order. No subsequent change orders made their way to the Legal files or offices.

It appears that the first time Legal was engaged (on critical scope issues) was in June and July of 2007, after the IT Department was having limited success in resolving the scope change issues. It was not until that point that Legal became fully aware of the major issues/concerns on the project or the number of changes to scope that had been processed (and the manner in which they were approved/processed).

By that point, the Legal Department was already in a challenging position in negotiating with IBM, because of the informal precedence's that had been set inadvertently. It is a best practice for a Legal Department to do regular review of large capital projects and make sure that all sides are complying with terms, conditions, and contracted procedures.

## Recommendation

The **Chief Business Support Officer** should work with the **AGM of Legal** to ensure that the current change order policy is revised to include legal (and other necessary entities) in the approval loop for change orders on large capital projects. Today, there is only clarity in this regard in the change orders associated with construction.

## Management Response

The Chief Business Support Officer stated, "All future projects will be implemented using the approved and published PMO guidelines which address the inclusion of the legal department on all large project change orders."

## Audit Department Follow Up

<u>No follow-up needed</u> – Management has indicated that the process will be incorporated into the PMO guidelines.

## Comment 15 – Requirements Gathering was not Detailed Enough

The Authority consulted with Booz-Allen to document the BTP requirements prior to RFP. Booz-Allen conducted sessions with the future users of BTP to determine their requirements, which were listed and reported through a Requirements Traceability Matrix (RTM), which became the basis for the requirements in the Authority's RFP.

The final product was given to each ERP contender and documentation was created to say if the functionality was "Out-of-the-box" or if some sort of customization was needed. However, detail was lacking in the requirements gathering process, resulting in some functionality originally thought to be fully supported by Oracle, which actually required customization.

For example, it was originally determined that garnishment of child support payments could be accommodated by Oracle. However, it was later determined that the Authority needed to cut a single check for child support payments to a specific vendor accompanied by a list of who the recipients were. The Oracle solution did not support this; instead Oracle could cut a check for each recipient, which would not meet the requirement. Eventually, the project team decided to buy and integrate another product, Exxor, to achieve this functionality.

### Recommendation

The **AGM of Technology** should ensure the creation of better project management guidelines for documenting functional requirements at a more detailed level for any kind of capital project in the future. Specifically, requirements need to more clearly highlight statutory and regulatory compliance issues, expectations of automation, the way in which functionality is used, and the expected outputs (including their format). The guidelines should also mandate user review and signoff on the breadth and depth of the requirements.

### Management Response

The AGM of Technology stated, "All future projects will be implemented using the approved and published PMO guidelines which address detailed requirements definition including statutory, regulatory compliance as well as automation expectations and their associated output. User reviews and signoffs are included as part of these guidelines."

### Audit Department Follow Up

**No follow-up needed** – Management has indicated that the process will be incorporated into the PMO guidelines.

## Comment 16 – There is No Universal Archive for the Project's Deliverables

It is typical for large projects to have a universal archive of deliverables, meeting agendas, meeting minutes, project schedules, etc. The BTP project team initially intended to use IBM's Ascendant system for project Knowledge Management. Authority team members had difficulty accessing Ascendant and ultimately abandoned it, although IBM continued to use it.

BTP team members from IBM refused to use MARTA's system in Phase I. With no universal central repository for document management, there is an incomplete record of activities and deliverables for the BTP project (and all other projects). The audit team had particular difficulty finding documentation supporting critical decisions. Ultimately, it took more than a month to get access to the various systems and find the data, which was not organized well.

Furthermore, with no universal central repository for document management, there is an incomplete record of activities and deliverables for all large capital projects. The institutionalization of a universal archiving system would enable quick access to information by senior management, the audit team, as well as independent assessors.
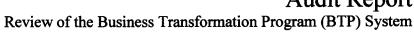
### Recommendations

1. The **BTP Project Team** should ensure that any future phase of this project be documented and archived in a single central repository.

2. The **General Manager/CEO** should ensure the creation of a plan and budget for implementing a universal knowledge management / document management system to be used by all capital projects within the Authority.

### Management Response

1. The AGM of Technology stated, "All future projects will be implemented using the approved and published PMO guidelines which address the utilization of a single central repository for all project documentation."

2. The General Manager/CEO stated, "BTP Phase III will include the implementation of a Document Management System that will be the repository for all documentation going forward."

### Audit Department Follow Up

1. **No follow-up needed** – Management has indicated that the process will be incorporated into the PMO guidelines.

2. <u>**November 28, 2008**</u> – The General Manager/CEO will send a memo to the Department of Internal Audit verifying that implementation of a Document Management System is part of the Phase III BTP scope presented in the executive summary to the EMT.