Smithsonian Institution

Memo

Date   March 3, 2005

To   Lawrence M. Small, Secretary

cc   Sheila P. Burke, Deputy Secretary and Chief Operating Officer
James D. Douglas, Director, Office of Human Resources
Dennis R. Shaw, Chief Information Officer
John E. Huerta, General Counsel

From   Gerard A. Roy, Acting Inspector General

Subject   Management Advisory Report (A-04-11)
Human Resource Planning System Implementation

The Office of the Inspector General (OIG) contracted with Project Auditors LLC to conduct a review of the Smithsonian Institution's (SI) PeopleSoft Human Resources implementation project. The purpose was twofold:

(1) to determine whether the Smithsonian's Office of Human Resources Enterprise Resource Planning (HR ERP) project management controls were adequate to provide reasonable assurances that the project identified all relevant Human Capital requirements under federal law, including Office of Personnel Management guidance, regulations, and requirements, as well as Smithsonian Trust guidance and standards; and

(2) to determine whether the Smithsonian's HR ERP project management plans and technical system implementation plans, processes, and actions were adequate to meet federal and Smithsonian trust human capital requirements.

As explained below, the review revealed that the HR ERP project has experienced schedule delays requiring the amendment of the implementation dates and product, and was beginning to incur cost overruns. The review also examined additional issues, including questionable contracting practices and inaccurate reporting of data.

The review also revealed that:
- the SI User community was heavily and successfully involved in the project;
- many SI Unit staff members have been trained on the HR ERP system and are looking forward to the new system;
- project communications with the SI Units were very good; and
- portions of the HR ERP have been completed and are functional.

This review focused on adherence to SI policies in the planning, implementation and cost control of this complex project. The OIG is mindful that portions of the HR ERP have been successfully completed. We note, however, that when project goals and milestones are routinely amended without controls being in place to monitor schedules, cost, and scope, it is difficult to quantify and recognize the success.

The OIG has met with the responsible officials to discuss the observations contained in this report and to update the data contained herein. The OIG has taken their comments into consideration.

Scope and Methodology

This review covered the Office of Human Resources (OHR) HR ERP system project implementation and was conducted from October 13, 2004, to December 17, 2004, in accordance with generally accepted government auditing standards. The methodology consisted of the following:

- Identifying and reviewing applicable Institution policies and procedures related to the system development life cycle and project management;
- Evaluating project management plans and technical system implementation plans;
- Evaluating project management controls over scope, budget and schedule; and
- Evaluating project management controls over Human Capital requirements required by applicable government regulations.

As part of the review, interviews were conducted with staff from OHR and the Office of the Chief Information Officer (OCIO) at the Smithsonian offices in Washington, DC. The contract auditors also interviewed staff from operating units who participated in working groups as well as staff at the National Finance Center (NFC),[1] United States Department of Agriculture (USDA). A web survey of administrative officers, working group members, and team members was also conducted.

Final meetings were held by the OIG with the responsible SI managers in February 2005 to determine the current status of the project.

Background

The Smithsonian Institution is in the midst of replacing and modernizing its human resources management systems. The initial focus was on replacing the SI's financial system with a commercial Financial System ERP. The HR ERP project was to begin in FY 2003 after Phase I of the SI's Financial System ERP replacement became operational.

To ensure and monitor success, the SI has published two directives covering project management planning and processing: *Information Technology (IT) Planning* (Smithsonian Directive [SD] 910), and *Life Cycle Management* (LCM) (SD 920). These directives lay out well-defined strategies for gathering and managing IT project requirements and, unless waived by the Chief Information Officer, apply to all SI personnel and contractors responsible for IT infrastructure projects.

SI established a HR ERP Team to manage the human resources system implementation composed of representatives of the OCIO, and working groups representing Smithsonian staff, the implementation contractor, and a quality assurance contractor.

Ensuring human resources requirements were identified and that the system was useful, as well as overseeing the overall project, was the responsibility of the sponsor, the OHR. Budgeting, technical implementation of the sponsor's human resources requirements and oversight of the contractor were the responsibility of the OCIO.

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[1] The NFC processes the Smithsonian payroll and is the Smithsonian's system of record for both payroll and personnel.

The HR ERP Team planned to implement the HR ERP in two phases budgeted at $8.8 million.[2]

- Phase I: human resources modules including Human Resources, Time and Labor and Payroll Interface were to be deployed by April 2004 and were budgeted at $5.6 million for 2003 and 2004.
- Phase II: the Benefits Administration module was to be deployed by October 2005 and was budgeted at $3.2 million for 2005.

The specific goals of the HR ERP project are to:

- Streamline labor-intensive human resource management processes
- Eliminate multiple key entry of data (duplication of effort)
- Improve the accuracy of human resource data
- Increase productivity of administrative support staff
- Allow work to be performed and tracked electronically
- Improve quality and timeliness of work products
- Provide online, real-time human resources management information reporting.

According to the May 2001 Smithsonian Institution *System Boundary Document*, HR ERP project success is contingent on meeting the following critical success factors:

- Business Process: Adapting Smithsonian processes to the ERP software product to streamline business processes and assure speedy, cost-effective implementation.
- Funding: Adequately funding the project to support production and enhancements.
- Usefulness: Implementing an ERP system that serves the needs of all users from the lowest unit administrative officer to the Secretary.
- Training: Providing training and support to staff administering and using the ERP system, and training the administrative workforce in moving from paper processing to electronic processing.

This review also compared the HR ERP to the Smithsonian's information technology (IT) implementation standards.[3]

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[2] The May 2001 *System Boundary Document* for the Enterprise Resource Planning System contains the Phase I and Phase II deployment schedule. The budgeted amounts for Phase I and II are from the annual Office of Management and Budget appropriation submissions (Exhibit 300) for FY 2001.

[3] Smithsonian Directive (SD) 910, *Information Technology Planning*, August 28, 2002, defines the Control Stage of IT projects by stating: "Guided by life cycle management principles, monitor interim results of IT projects and take action to ensure that benefits are achieved. To help manage and control projects, IT project managers will prepare detailed plans using project management control software." SD 920, *Life Cycle Management*, August 5, 2002, requires that certain steps in the design, development, and implementation of a system be logically and sequentially planned. There are six defined implementation steps: (1) initiation; (2) concept and requirements definition; (3) detailed analysis and design; (4) development and testing; (5) deployment; and (6) operations.

In addition to the above, the primary SI standards that were used to evaluate the HR ERP project management planning and processes were the OCIO's Project Management Manual (IT-910-01) and the Life Cycle Management standard (IT 920-01).

RESULTS

Schedule Delays and Cost Overruns

The plan was to implement four HR ERP modules in two phases. The first phase was to include three modules (Human Resources, Time and Labor, and Payroll Interface) and was scheduled to be implemented by April 2004 at a cost of $5.6 million. The second phase included one module (Benefits Administration) and was scheduled to be implemented by October 2005 at a cost of $3.2 million.

The plan was later changed to four phases. The first phase, estimated at $4.3 million, now included only the Human Resources and Payroll Interface modules. The remaining three phases, estimated at $2.9 million[4], will include the Benefits Administration module. The Time and Labor module, however, which is estimated at $4.3 million, is no longer included in the remaining phases of the HR ERP. The Time and Labor module has been moved to the financial system ERP for inclusion into that system in FY 2006 or FY 2007.

Instead of accomplishing these revised project management goals on schedule and within budget, the SI implemented the amended first phase (Human Resources and Payroll Interface modules) in December 2004 at a reported cost of $4.7 million. The actual cost, however, is likely more. The scope of work was changed and reduced from the original plans.[5] We were unable to compare the project's actual costs to the original phased budget, and management could not provide us with that information. As management acknowledged, "it is not possible to provide an exact breakout of the original estimate to the phase one modules."

The remaining three phases are reportedly on schedule, with the final phase scheduled to be completed in September 2005.

Further schedule delays or cost overruns may require the Institution either to obtain additional funding in the future to complete the remaining modules or to accept less functionality than originally planned.

Questionable Contracting Practices

The HR ERP contractor that was hired[6] did not have the personnel with the appropriate experience on board to perform the duties specified in this contract when the contract was awarded. Appropriate personnel were hired subsequent to the award. This raises questions as to the process used to solicit and award the contract. In addition, the HR ERP contract changed from a fixed-price contract to a time-and-materials contract. This change increased the Institution's risk of project cost overruns since the responsibility to control costs shifted from the contractor to the Institution.

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[4] There are differences in scope between the OMB-300, dated Sept. 10, 2004, and the Project Management Plan, dated Oct. 4, 2004.

[5] While the reported budget is only slightly exceeded, it is also underestimated -- albeit within SI rules. The project costs were actually higher than reported because a significant amount of work was done by SI personnel without being charged to the project. The current rule requires that only personnel who are on the project for more than 51% of their time charge their time, hence cost, to the budget of the project. If the SI followed a tighter budget control formula, the actual costs would be higher.

[6] The contractor that was selected was the same contractor the SI used to implement its Financial Systems ERP.

Inaccurate Reporting

We found the Office of Management and Budget (OMB) Exhibit 300, filed by SI on September 10, 2004, was inaccurate and should be amended.[7] The OMB-300 stated, "The ERP Human Resources Management System (ERP HRMS) is on track for initial deployment in October 2004."

The system was not on track. For example, by September 10, 2004, the problems with the NFC interface were well known.[8] Pilot testing conducted in June and July 2004 showed that between 20% and 50% of the transactions sent to the NFC were unsuccessful. This was not only a highly critical interface but a very complex one. Yet the official decision to delay to the go-live date was not made until October 2004.

CONCLUSION

The review conducted on behalf of the OIG reports both positive and negative developments in the implementation of the HR ERP. Portions of the HR ERP have been completed and are functional. However, much remains to be done before this project can be labeled a success. Many of the problems outlined in this review are not new to the Institution. Earlier OIG reports have documented systemic difficulties the Institution has had in monitoring large, complex projects, and managing them to a budget. The Institution has developed well-crafted Directives to help guide itself through these projects, but we have found that the Institution has difficulty following its Directives. Accordingly, we would suggest that OCIO establish a position of Project Management Officer to help monitor and coordinate OCIO projects.

We understand and acknowledge that managers have a responsibility to be concerned about both the results of a project as well as the process used to achieve those results. We are equally concerned that the end results of a project meet all of the project's predefined needs and cost. We suggest that the OCIO ensure that SI directives mandating project management principles and standards under their auspices are followed, or that they be amended to meet the realities of SI project management. We are also concerned with the inadequate reporting to OMB and suggest that OCIO file an amended and updated OMB-300 to accurately reflect the current state of the HR ERP project. Inasmuch as this is the second time we note reporting problems to OMB, we suggest that the OCIO institute a formal review and approval process to ensure all future filings are accurate.

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[7] This same problem was also noted in the Enterprise Resources Planning Financial Services Implementation audit conducted by this Office. (OIG A-03-07, March 21, 2004)

We also note that internal status reports on the HR ERP project were not regularly completed and apparently were suspended in August 2004. Weekly status reports resumed in January 2005.

[8] The NFC is a critical interface. Interface testing began almost a year ago. This review found that transaction acceptance rates in October were less than optimal. This was a contributing factor to the go-live date being delayed from October 1, 2004 to December 2004. Testing time for the NFC interface is limited, but the schedule for those times is published months in advance. Although discussed during the review as a problem, we believe that this restriction should not have been a problem.