DEPARTMENT OF TAXATION

RICHMOND, VIRGINIA

REPORT ON AUDIT

FOR THE YEAR ENDED

JUNE 30, 2003

APA

Auditor of Public Accounts

COMMONWEALTH OF VIRGINIA

Commonwealth of Virginia

Auditor of Public Accounts
P.O. Box 1295
Richmond, Virginia 23218

Walter J. Kucharski, Auditor

January 20, 2004

The Honorable Mark R. Warner
Governor of Virginia
State Capitol
Richmond, Virginia

The Honorable Lacey E. Putney
Vice Chairman, Joint Legislative Audit
and Review Commission
General Assembly Building
Richmond, Virginia

We have audited selected financial records and operations of the **Department of Taxation** (Taxation) for the year ended June 30, 2003, in support of the Comprehensive Annual Financial Report for the Commonwealth of Virginia.

Audit Objectives, Scope, and Methodology

Our audit's primary objective was to evaluate the accuracy of the Taxation's financial transactions as reported in the Comprehensive Annual Financial Report for the Commonwealth of Virginia for the year ended June 30, 2003. In support of this objective, we evaluated the accuracy of recording financial transactions on the Commonwealth Accounting and Reporting System and in Taxation's accounting records, reviewed the adequacy of Taxation's internal control, tested for compliance with applicable laws and regulations, and reviewed corrective actions of audit findings from prior year reports. Our review encompassed controls over the following significant cycles, classes of transactions, and account balances.

- Cash and Cash Equivalents
- Accounts Receivable
- Deferred Credit
- Deferred Revenue
- Accounts Payable
- Other Liabilities
- Tax Revenues
- Interest, Dividends, Rents, and Other Investment Income
- Other/Miscellaneous Revenue
- General Government Expenditures

We reviewed and gained an understanding of the overall internal controls, both automated and manual, including controls for administering compliance with applicable laws and regulations, sufficient to plan the audit. We considered materiality and control risk in determining the nature and extent of our audit procedures. Our audit procedures included inquiries of appropriate personnel, inspection of documents and records, and observation of the following operations:

- Tax Return Processing
- Tax Revenue Collection
- State Tax Accounting and Reporting System
- Lifeworks System
- Total Automated Capture System
- Virginia Tax On-line
- Joint Electronic Filing System
- Expenditures
- Financial Reporting

Management has responsibility for establishing and maintaining internal control and complying with applicable laws and regulations. Internal control is a process designed to provide reasonable, but not absolute, assurance regarding the reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations. We tested transactions and controls and performed other audit tests we deemed necessary to determine whether Taxation's controls were adequate, had been placed in operation, and were being followed.

Our audit was more limited than would be necessary to provide assurance on internal control or to provide an opinion on overall compliance with laws and regulations. Because of inherent limitations in internal control, errors, irregularities, or noncompliance may nevertheless occur and not be detected. Also, projecting the evaluation of internal control to future periods is subject to the risk that the controls may become inadequate because of changes in conditions or that the effectiveness of the design and operation of controls may deteriorate.

Audit Results

We noted certain matters involving internal control and its operation that we consider to be reportable conditions relative to the Comprehensive Annual Financial Report for the Commonwealth. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of internal control that, in our judgment, could adversely affect Taxation's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial records. These reportable conditions, entitled "Strengthen Controls Over Program Change Control" and "Improve Application Access Controls," are described in the subsection entitled "Audit Findings." They will be included in the Commonwealth of Virginia Single Audit Report for the year ending June 30, 2003. We believe that none of the reportable conditions is a material weakness.

Taxation has not taken adequate corrective action with respect to segregation of duties issue in the previously reported finding "Strengthen Controls Over Program Change Control." Accordingly, we included this finding in the subsection entitled "Audit Findings." Taxation has taken adequate corrective action with respect to audit findings reported in the prior year that are not repeated in this letter.

We have included management's views concerning these findings and recommendations, as well as their planned corrective actions, at the end of this letter.

Audit Findings

Strengthen Controls Over Program Change Control

While Taxation has developed, approved, and implemented several policies and procedural documents related to program change management during the past year, we found that controls over program change are still inadequate to ensure a secure, dependable environment for their applications. Our concerns lie in four areas: Policies and Procedures, Separation of Duties, Configuration Management Coordinator Responsibilities, and Documentation Management.

Policies and Procedures

Taxation uses a decentralized approach to change management due to the various applications and operating environments in place. Change management is the process by which Taxation alters or improves both existing programs and new programs under development, and how various programs and processes interact with the changes. Taxation currently has five policies and procedures documenting the change management process approved by management between September 2002 and July 2003. We also observed the use of two additional documents to support change management, which Taxation has not formally approved.

The various policies state that some apply only to mainframe applications and some apply only to client-server applications; however, the detailed information of each policy refers to all applications. The abundance of policies and additional documents makes it difficult to recognize a single comprehensive process for change management and how the various applications or environments fit into that process.

Separation of Duties

As previously reported, Taxation has not implemented proper controls to ensure adequate separation of duties within the change management process. We identified several instances within the client server environment where developers initiated a change request, performed the development, and implemented the change. Lack of proper separation of duties in relation to changes made to a production system can allow developers to bypass the approval workflow and implement potentially harmful code. Taxation's Internal Audit Department cited similar weaknesses in their Computer Assisted Collection System for Government report issued March 31, 2003.

Taxation developed an action plan in March 2003 to address this issue, with a final resolution date of March 2004. Due to competing priorities as a result of other projects, such as Tax Amnesty, management has revised this date to September 2004.

Configuration Management Coordinator's Responsibilities

According to Taxation's Policies and Procedures and the Configuration Management Coordinator's position description, it is the Coordinator's responsibility to oversee the entire program change management process; manage the Program Version Control System; provide training for staff members in the use of change management tools; and verify compliance with established policies. However, during our review we found that the Coordinator's duties were limited to reviewing the change request database and developing policies, while certain other responsibilities were delegated. If the coordinator, or the designee, is not performing all assigned responsibilities, Taxation is at risk of documented controls failing or employees bypassing crucial controls, either intentionally or unintentionally.

Change Management Documentation

Finally, we experienced difficulties locating user and system documentation of changes made. The uncertainty of the location of information caused delays and lead to difficulties in the performance of our review. What information was available did not consistently or sufficiently link the change request to its supporting documentation. In some cases, required fields, such as the change description, back out plan, and impact analysis, were missing important information or were simply blank.

Taxation is in the process of developing a new documentation process and instituting paperless controls. However, in the interim, by not maintaining complete documentation in a central location, Taxation is at risk of system documentation becoming out of sync with the system. If documentation is not current, later changes could cause system failures or other unintended consequences, including not being able to properly restore the system.

Recommendation

Taxation should review its program change management policies and enhance its change control procedures to provide an easily identifiable step-by-step change management process. The policies and procedures should specifically address the separation of duties between programmers, and the movement of changes into production. Taxation should ensure the quality assurance staff receive appropriate training to move code into all production systems, and limit developer access to production.

To support their decentralized change management environment and ensure compliance with their policies and procedures, Taxation should provide the Configuration Management Coordinator the necessary resources, including additional staff as needed, to ensure all aspects of this role are completed. Further, Taxation should provide training for staff to communicate changes to the configuration management plan and change control process, specifically highlighting documentation management.

Finally, Taxation should enhance and enforce the documentation management policies and procedures. At a minimum, Taxation should identify and maintain a central repository (paper or paperless) of information to permit the review of any change request to ensure the critical steps of the process are completed in compliance with Taxation's policies and procedures.

Improve Application Access Management

We found impaired controls over Taxation's process for granting and administering access to certain applications.

- For the Remittance Data Capture System application, a formal request process documenting authorization and approval of access additions and deletions does not exist. A formal request process would help to prevent unauthorized access and possible abuse of the system, as well as enable the monitoring of user access.

- For the Electronic Filing (ELF) application, the two primary users of the application also serve as the security administrators for the application. Administrator privileges allow the user to add and delete new and existing users as well as grant themselves privileges within the system. Given their roles and responsibilities, it is inappropriate for these individuals to serve as security administrator or have administrator privileges. With this access and their knowledge of the application, they have the ability to give themselves levels of access they could use to Taxation's detriment.

For all applications Taxation should ensure compliance with the policy and procedures outlined in their Security Plan. Compliance with application access policies and procedures should include a formal and documented request process for user updates, deletions, and modifications; as well as separation of duties with respect to the establishment and maintenance of user application access.

Overview of Public-Private Partnership Project

In 1998, Taxation contracted with American Management Systems (AMS) to develop and implement an Integrated Revenue Management System. Taxation also contracted with TRW Systems & Information Technology Group (TRW) to conduct periodic project performance monitoring and evaluation services. The project had an original conversion date of 2003; however, through a change order executed February 2003, the conversion date is now September 2004, with final completion expected by June 30, 2005. The reason for this extension is due to Tax Amnesty which delayed the final implementation until after the 2004 tax filing season, and AMS support through the 2005 tax filing season.

The primary justification for the Partnership Project was the replacement of Taxation's legacy revenue accounting system, STARS (State Tax Accounting and Reporting System), which is approaching 20 years of operation. The Partnership Project expects to implement the STARS replacement, Advantage Revenue, in September 2004. Its implementation represents the largest milestone defined in the contract with AMS. Due to the nature of business operations within Taxation, any significant slippage in the current project plan for Advantage Revenue would delay its implementation until July 2005.

Partnership Project Funding

Partnership Project funding comes from increased tax revenues generated as a result of technological solutions and improved business processes the Partnership Project developed and implemented. The additional revenues go into the 90 percent fund and the 10 percent fund. The 90 percent fund pays AMS its contractual obligations, while the 10 percent fund pays all other expenses attributable to the project. These collections increased approximately $16 million over the prior year, and as of June 30, 2003, cumulative Partnership Project revenues totaled approximately $159 million.

Partnership Project Revenues

Fiscal Year	90 Percent Fund	10 Percent Fund	Total
1999	$ 5,695,458	$ 632,799	$ 6,328,257
2000	10,487,760	1,165,337	11,653,097
2001	33,140,337	3,682,260	36,822,597
2002	39,522,127	4,391,347	43,913,474
2003	54,457,988	6,050,887	60,508,875
Total	$143,303,670	$15,922,630	$159,226,300

Partnership Project Cost

Original contract costs with AMS totaled $123 million. In addition, Taxation agreed to pay AMS interest on any interim billing if the 90 percent fund did not have the resources to pay. Taxation initially estimated that interest payments would total $17 million over the life of the contract.

Due to various change orders, including Tax Amnesty, the contract price has increased to $166 million, but as of June 30, 2003, Taxation projected interest costs of $2.1 million rather than the original $17 million. This interest projection decreased $1 million from June 30, 2002, and resulted from the project initiatives generating revenues in a shorter-than-expected period and project expenses have been incurred at a slower than expected rate.

Taxation is incurring other project costs in addition to the AMS payments discussed above. These additional costs include overhead and miscellaneous expenses such as TRW payments supported by the 10 percent fund, as well as Taxation staff time spent directly on the projects, primarily supported by Taxation's operating general fund budget.

The following chart highlights that total anticipated project costs exceed $200 million, including interest payments and Taxation payroll projections. The chart also summarizes the corresponding actual costs incurred during fiscal 2003 and for the project to date through June 30, 2003.

	Anticipated Costs as of June 30, 2002	Anticipated Costs as of June 30, 2003	Fiscal Year 2003 Activity	Activity through June 30, 2003
Partnership Project contract cost (90 percent fund)	$153,000,000	$ 166,210,690	$34,089,720	$ 109,922,018
Partnership Project interest payments (90 percent fund)	3,000,000	2,075,586	-	1,075,586
TRW (10 percent fund)	5,000,000	5,000,000	1,022,296	3,648,100
Overhead/miscellaneous (10 percent fund)	13,000,000	14,768,974	2,409,410	7,975,829
Taxation payroll (Taxation general fund)	33,000,000	36,825,466	6,694,146	26,303,336
Totals	$207,000,000	$ 224,880,716	$44,215,572	$ 148,924,869

After completion of the project, Taxation will have a need for ongoing funding to support the operating costs of the new system. On November 20, 2001, Taxation and AMS made several contractual changes. One of these changes adjusted the fund retention figures from 90/10 to 70/30, beginning July 1, 2003. This change will allow Taxation to accumulate $7.4 million more in their administrative account to pay future operating cost increases, rather than receive increased General Fund appropriations. This change allows Taxation to have up to $11 million available for use in funding various parts of the project, including lease payments and hardware and software maintenance costs. Once Taxation accumulates these monies, the contract requires the fund split to revert back to 90/10. This funding arrangement relieves the General Assembly from the burden of appropriating General Funds to support these operating cost increases in fiscal year 2004. For allowing this change, Taxation agreed to lengthen the payback period from ten years to 11 years; however, this does not affect the total cost of the contract.

EXIT CONFERENCE

We discussed this letter with management at an exit conference held on January 30, 2004.

AUDITOR OF PUBLIC ACCOUNTS

MSM:whb
whb:36

COMMONWEALTH *of* VIRGINIA

Department of Taxation

February 9, 2004

Mr. Walter J. Kucharski
Auditor of Public Accounts
P.O. Box 1295
Richmond, Virginia 23218

Dear Mr. Kucharski:

Thank you for the opportunity to provide the Department of Taxation's (TAX) comments and action plans to address the audit findings identified as part of your office's audit of TAX's financial records and operations for the year ended June 30, 2003.

Since my appointment as Tax Commissioner in May 2002, I have strived to maintain TAX's strong record of ensuring that internal controls and business processes reflect standards of highest integrity without sacrificing critical operating efficiencies. Based on this year's audit findings, it appears that the record is intact, that substantial effort continues to guarantee that these important objectives are achieved and that there are no material weaknesses.

<u>Strengthen Controls Over Program Change Control</u>

Until TAX's new Advantage Revenue (AR) system is operational in September 2004, however, TAX will be unable to address and implement all the elements recommended under the audit finding <u>Strengthen Controls Over Program Change Control</u>. I note that the comment does not recite the significant efforts TAX has made over the last several years to improve controls in this area despite maintaining two different system architectures.

A recap of TAX's plan in response to the audit follows:

- <u>Policies and Procedures</u>: TAX will eliminate redundant change management policies and procedures relevant to its current mainframe system, STARS, when Advantage Revenue becomes operational in September 2004, and consolidate all remaining change management client-server policies and procedures in the new environment into a single, comprehensive process for change management. This has been, and continues to be TAX's goal, but, maintaining two operating system architectures while making the transition to the new system has not allowed that to be accomplished as soon as we would prefer.

- Separation of Duties: This issue was identified in last year's audit, at which time TAX submitted an action plan that included full resolution by March 2004. TAX has utilized the Change Control Committee to evaluate and approve the appropriateness of production environment changes. TAX continues its efforts, as indicated in the response to this issue to the Department of Accounts in April 2003, to prevent staff from both modifying code and moving program changes into production in the long term. Nonetheless, TAX's limited production staffing coupled with the training necessary to compile and move new programming code into production, as well as the Advantage Revenue delays caused by Tax Amnesty, prevent TAX from meeting that goal in the short term. TAX's current staff is experienced in mainframe-related code migration, but not experienced in managing the migration of the new client-server programming languages introduced by the Partnership Project.

  Once the Partnership concludes, TAX will move additional staff to this role, as necessary, to ensure staffing levels are adequate to handle the volume of code migrations as well as training the staff to move this code into production. This should result in the proper separation of duties and prevent development staff from modifying production programs. Until that time and because it is in TAX's and the developers' best interest to ensure the production programs are working correctly, lead developers will be required to move code to production after approval by the Change Control Committee. TAX expects to be in a position to achieve an acceptable level of separation of duties after Advantage Revenue is operational in September 2004. As it has done in the past, Internal Audit will monitor and review modifications and documentation requirements concerning program code migration to production during the course of its ongoing examinations.

- Configuration Management Staff Responsibilities: TAX agrees there is lack of clarity in the role of the Configuration Management Coordinator and that additional staff is needed to perform the function optimally. Configuration Management is a new function at TAX, brought about because of the new client-server computing environment implemented through the Partnership Project. As you indicated during our exit conference, TAX is the first state agency to be audited against these configuration management standards and that both of our agencies are learning. While the introduction of leading-edge technologies has allowed TAX to achieve significant operational gains and offer many innovative services to customers, it has also introduced more complex standards that did not apply to the old environment. TAX has already made a significant investment in configuration management, including adding staff with strong credentials that have made visible and important contributions. TAX will clarify the roles involved in Configuration Management and add additional staff to this function, as necessary, once the work of the Partnership is completed.

- Change Management Documentation: TAX agrees that there are insufficiently clear policies and procedures concerning the type of documentation that is to be maintained, where it should be maintained (in PVCS versus other document management systems at TAX), and who is responsible for maintaining it. TAX will review these documentation standards and resolve those areas needing improvement.

Improve Application Access Management

With respect to the comment Improve Application Access Management, TAX acknowledges that the procedures for granting and administering access to certain applications should be strengthened. TAX plans the following actions:

- Remittance Data Capture System Application – Beginning in mid-February 2004, TAX will use the agency's LAN-1 request form to supplement the e-mail requests used exclusively in the current practice. The practice of using e-mail messages developed because of those Channel operations that require that access be provided on a quick turnaround basis, sometimes within 24 hours or less. LAN-1 requests will now be completed for all operators and be sent to both the Help Desk and the applicable Channel Business System Administrator (BSA). The Channel BSA's will use this form as the official request to add operators to the systems. TAX's Notice of Separation Process will continue to serve as the mechanism by which deletions are made.

- Electronic Filing (ELF) Application – The Office of Technology, IT Risk Management group, will determine what additional controls can be incorporated into the ELF process to mitigate the risk of federal data alteration prior to being uploaded to STARS. As part of this determination, the group will assess whether improved audit logging can be instituted and whether fewer privileges can be granted to the current users of the ELF software while still allowing them to perform their duties efficiently and effectively.

Again, I appreciate the opportunity to provide the Department of Taxation's comments as part of your office's report of TAX's financial records and operations for the year ended June 30, 2003.

Sincerely,

Kenneth W. Thorson
Tax Commissioner

c: The Honorable John M. Bennett
Secretary of Finance