

Audit Report

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**Comptroller of Maryland  
Revenue Administration Division**

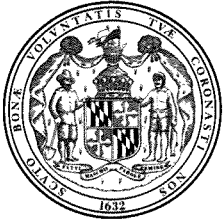
August 2013

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**OFFICE OF LEGISLATIVE AUDITS  
DEPARTMENT OF LEGISLATIVE SERVICES  
MARYLAND GENERAL ASSEMBLY**

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DEPARTMENT OF LEGISLATIVE SERVICES  
OFFICE OF LEGISLATIVE AUDITS  
MARYLAND GENERAL ASSEMBLY

August 23, 2013

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Members of Joint Audit Committee  
Annapolis, Maryland

Ladies and Gentlemen:

We have audited the Comptroller of Maryland – Revenue Administration Division (RAD) for the period beginning March 2, 2009 and ending February 14, 2012. RAD is primarily responsible for receiving and depositing various tax remittances, processing tax returns, maintaining taxpayer records, distributing taxes in accordance with State laws, issuing income tax refunds, and providing assistance to taxpayers.

Our audit disclosed that RAD needs to make enhancements to its individual income tax return data validation processes. RAD did not always verify and retain documentation to support the propriety of credits claimed by taxpayers for individual income taxes paid to another state, as required by its procedures. For example, we identified a number of tax returns claiming credits for out-of-state taxes paid that should have been verified but were omitted from RAD's verification processes. Out-of-state tax credits claimed by taxpayers for tax year 2010 totaled \$237.8 million.

We also noted that RAD had attempted, but was unable to successfully develop a process to validate the social security numbers for dependents claimed on individual income tax returns. Validation is necessary to help substantiate the related exemptions, which generally reduce taxable income. Due to a programming error, an automated report of individual income tax returns submitted without required tax withholding documentation did not capture all such returns for follow-up purposes.

Our audit also identified internal control deficiencies with respect to taxpayer account adjustments, returned refund checks, information system security, and cash receipts. For example, our tests disclosed a number of adjustments to reduce taxpayer liabilities that were not reviewed by supervisory personnel as required. Furthermore, security software and database monitoring controls for certain tax-

related systems were not sufficient to ensure that potential security issues were identified and properly reviewed. Additional safeguards are needed to protect sensitive personal taxpayer data residing on RAD's systems.

An executive summary of our findings can be found on page 5. The Comptroller of Maryland's response to this audit, on behalf of RAD, is included as an appendix to this report. We wish to acknowledge the cooperation extended to us during the course of this audit by RAD.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Thomas J. Barnickel III". The signature is written in a cursive style with a large initial "T" and a stylized "B".

Thomas J. Barnickel III, CPA  
Legislative Auditor

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# Executive Summary

## Legislative Audit Report on the Comptroller of Maryland Revenue Administration Division (RAD) August 2013

- **RAD did not always verify and retain documentation to support the propriety of credits claimed by taxpayers for individual income taxes paid to another state, as required by its procedures. Furthermore, verifications that were performed were often untimely and lacked supervisory review. Out-of-state tax credits claimed by taxpayers for tax year 2010 totaled \$237.8 million.**

RAD should ensure that out-of-state tax credits claimed are verified as required, appropriate documentation is retained, and that these verifications are timely and subject to supervisory review.

- **Procedures were not in place to ensure the validity of social security numbers for dependents claimed on individual income tax returns. A similar finding was included in our preceding audit report. Although RAD explored validating dependent social security numbers through various measures, including with the Internal Revenue Service, at the time of our audit these efforts remained unsuccessful. Based on RAD's records, we estimated that taxpayers claimed 1.9 million dependents on their individual income tax returns for tax year 2010.**

To help verify the propriety of reported dependents and associated tax benefits, RAD should establish procedures to ensure that dependent social security numbers reported by taxpayers on their individual income tax returns are valid.

- **RAD did not ensure that an automated report of questionable tax returns identified by the SMART system for review and follow-up by RAD employees was accurate and complete. The report, which reflected tax returns submitted without required tax withholding documentation for 2008, 2009, and 2010, excluded more than 3,000 tax returns for review purposes.**

RAD should ensure that automated reports of questionable tax returns are accurate and complete.

- **Procedures used to account for income tax refund checks returned by the post office as undeliverable, verify the propriety of replacement refund checks issued, and account for refund checks submitted for mailing need to be improved.**

RAD should implement the recommended improvements to ensure accountability for and propriety of refund checks.

- **Significant adjustments to taxpayer accounts on the SMART system were not always reviewed by supervisory personnel as required. Our test of 15 adjustments disclosed 7 adjustments that reduced taxpayer liabilities by \$28.3 million that were not reviewed as required.**

RAD should ensure that critical adjustments are reviewed in accordance with its procedures.

- **Certain control deficiencies were noted with respect to RAD's information systems security and cash receipts. For example, security software and database monitoring controls over critical systems were not adequate and controls over the security of sensitive taxpayer information need improvement.**

RAD should take the recommended actions to improve its controls over information system security and cash receipts.



## **Background Information**

### **Agency Responsibilities and Organizational Change**

The Revenue Administration Division's (RAD) primary responsibilities include receiving and depositing various tax remittances, processing tax returns, maintaining taxpayer records, distributing taxes in accordance with applicable State laws, issuing income tax refunds, and providing assistance to taxpayers. RAD uses the Comptroller of Maryland's automated State of Maryland Tax (SMART) system to record and process tax return information and issue refunds for individual income taxes, as well as for certain other taxes, such as corporate income taxes, employer withholding taxes, and sales and use taxes. The most significant taxes collected and processed by RAD are income taxes and sales and use taxes.

Furthermore, effective July 1, 2009, the Comptroller's Motor-Fuel, Alcohol and Tobacco Tax (MATT) Division discontinued functioning as a separate budgetary unit and became a unit under RAD, which assumed responsibility for administering laws and regulations pertaining to the manufacture, storage, transportation, sale, and distribution of alcoholic beverages, tobacco, and motor fuel, and for collecting the related excise taxes. The activities of MATT during the period from March 2, 2009 through June 30, 2009 were included in a separate audit report dated July 28, 2010.

Table 1 lists the significant taxes collected by RAD (sources greater than \$100 million annually), according to RAD's records, for fiscal years 2010 through 2012:

**Table 1**  
**Significant Tax Collections and Distributions**  
**Fiscal Years 2010 – 2012**  
**(sources greater than \$100 million annually)**

	Fiscal Year		
	2010	2011	2012
(dollars stated in millions)			
<b>Gross income taxes collected</b>	<u>\$13,818</u>	<u>\$14,401</u>	<u>\$14,981</u>
Less:			
Refunds	2,949	2,736	2,638
Administrative expenses	<u>13</u>	<u>13</u>	<u>13</u>
Total refunds and expenses	<u>2,962</u>	<u>2,749</u>	<u>2,651</u>
Balance available for distribution	<u>\$10,856</u>	<u>\$11,652</u>	<u>\$12,330</u>
Distribution of remaining balance:			
To State's General Fund	\$6,889	\$7,215	\$7,761
To local subdivisions	3,764	4,231	4,336
To other Funds as provided by State Law (such as the Transportation Trust Fund)	203	206	233
Total distributions	<u>\$10,856</u>	<u>\$11,652</u>	<u>\$12,330</u>
<b>Gross sales and use tax collections</b> which are primarily credited to the State's General Fund	<u>\$3,771</u>	<u>\$3,911</u>	<u>\$4,091</u>
<b>Gross motor fuel tax collections</b> which are primarily credited to the Transportation Trust Fund	<u>\$747</u>	<u>\$771</u>	<u>\$749</u>
<b>Gross tobacco tax collections</b> which are primarily credited to the State's General Fund	<u>\$408</u>	<u>\$408</u>	<u>\$412</u>
<b>Gross estate tax collections</b> which are primarily credited to the State's General Fund	<u>\$173</u>	<u>\$216</u>	<u>\$197</u>

**Source: RAD Records**

## **Integrated Tax System Project – Settlement Agreement**

In December 2008, the Board of Public Works approved a multi-year contract for the development and implementation of the Modernized Integrated Tax System (MITS). The MITS project consisted of two components: (1) an integrated tax system (ITS) to replace the Comptroller's SMART system and the existing business tax collection system, and (2) a business intelligence and data-warehousing component (BI/DW) to compile and store relevant taxpayer data for tax compliance enforcement purposes. When the MITS design and implementation contract was executed, the estimated total cost was \$72.3 million and the projected completion date was July 2013 (excluding other related project costs, such as for maintenance and training). The Comptroller's Information Technology Division was responsible for administering this contract.

In December 2010, the Comptroller informed the MITS development contractor that it was exercising its right under the contract to suspend all further work on the ITS component of the project. According to the Comptroller, this decision was based on several factors, including cost concerns and failure on the part of the contractor to meet deliverable deadlines. According to the Comptroller's records, as of January 10, 2011, costs incurred for both components totaled approximately \$36.9 million. Specifically, for the suspended ITS portion of the contract, costs incurred totaled \$17.9 million and \$24 million remained unspent. For the BI/DW portion, \$19 million had been spent to date, with \$11.4 million remaining on the contract. Development of the BI/DW component was unaffected by this action. Subsequent to its decision to suspend all further work on the ITS component of the MITS project, the Comptroller assessed its options concerning potential legal actions the State may pursue arising from possible contractor violations with provisions of the contract.

In April 2012, the Comptroller reached a settlement agreement with the contractor to modify the initial contract (scope of work) to delete any remaining work on the ITS component and to require completion of the BI/DW component at no further cost to the State. The modification provided for the Comptroller to receive a \$10.6 million credit for payments made to date for unusable portions of the ITS component to be applied to future invoices for the BI/DW component. The balance of previous payments for the ITS component (\$7.3 million) related to software to be retained by the Comptroller for future use. The modified contract was approved by the Board of Public Works on April 4, 2012. Consistent with the settlement agreement, the \$10.6 million credit was applied to the remaining costs of the BI/DW component. According to the State's records, no additional payments were made for this component, and as of October 31, 2012, the BI/DW component was moved to production.

## **Status of Findings From Preceding Audit Reports**

Our audit included a review to determine the status of the nine findings contained in our preceding audit report dated April 5, 2010. We determined that RAD satisfactorily addressed six of these findings. The remaining three findings are repeated in this report.

Our audit also included a review to determine the status of the two findings in our preceding audit report, dated July 28, 2010, on the former MATT Division. As previously mentioned, RAD now performs functions, including fiscal functions, previously performed by MATT. We determined that RAD satisfactorily addressed one of these findings. The remaining finding is repeated in this report.

## Findings and Recommendations

### Individual Income Tax Return Processing

The Revenue Administration Division (RAD) of the Comptroller of Maryland (COM) is responsible for the front-end processing of individual income tax returns and related payments. Income tax returns are accepted in both paper and electronic formats. Taxpayer information submitted is saved in electronic format, including scans of information submitted in paper format. RAD performs various edit checks to validate certain information on the returns, performs pre-processing and post-processing reviews, makes adjustments to returns in accordance with applicable State laws, and disburses income tax refund checks. RAD uses the COM's automated State of Maryland Tax (SMART) system to record and process tax return information and issue refunds for individual income taxes.

RAD has established requirements for Maryland taxpayers who have income earned in another state. Generally, Maryland residents must report that income on their Maryland income tax returns, but are entitled to credits against their Maryland tax liabilities for taxes paid to other states. Taxpayers who submit a Maryland paper income tax return claiming an out-of-state tax credit are required by RAD to submit documentation (for example, a copy of the tax return filed with the other state) with their returns. Taxpayers who submit their Maryland returns electronically are not required to submit documentation with their returns, but are subject to a post-processing review in which selected taxpayers are required to submit the supporting documentation. According to RAD's records, out-of-state tax credits totaling \$237.8 million were claimed by taxpayers on approximately 36,500 electronic and 16,000 paper tax year 2010 returns, totaling \$106.1 million and \$131.7 million, respectively.

#### **Finding 1**

**Required documentation was not always on file to support out-of-state tax credits claimed on paper returns.**

#### **Analysis**

Required documentation was not always on file to support out-of-state tax credits claimed on paper tax returns. Specifically, we examined 30 individual income tax returns submitted in paper format for tax year 2010 that claimed out-of-state tax credits totaling \$30.5 million. Our test included the 25 largest out-of-state tax credits claimed on paper returns that year. We noted 4 returns for which the required documentation was not on file to support credits totaling approximately \$4 million. RAD advised that, for 2 of the returns, the documentation had previously been received and reviewed, but could not be scanned due to on-line

storage limitations on the size of the documentation; furthermore, the hard copy documentation was not retained. However, without the required documentation, RAD could not substantiate that the credits were verified. For the other 2 returns, documentation had not been obtained, and the credits were not disallowed as called for by RAD's procedures; after our inquiries, the required documentation was requested for these 2 returns. A fifth return we examined included a credit of \$632,451 that was adequately supported but, because of a clerical error, was recorded in the automated tax system as \$733,551. The error, which had not been detected by RAD, resulted in a refund overpayment of \$101,100 for which the taxpayer was billed after we brought this matter to RAD's attention.

### **Recommendation 1**

**We recommend that RAD**

- a. ensure that all documentation is submitted and retained to support out-of-state tax credits claimed;**
- b. take appropriate action, such as disallowing the claimed credit when required documentation is not submitted;**
- c. recover any amounts due related to the results of our testing; and**
- d. ensure that out-of-state tax credits are properly recorded in the SMART system.**

### **Finding 2**

**RAD's processes did not ensure that out-of-state tax credits claimed on electronically filed tax returns were verified to supporting documentation consistent with its policy.**

### **Analysis**

RAD's processes were not effective to ensure that out-of-state tax credits claimed on electronically filed tax returns were verified to supporting documentation consistent with RAD's policy. RAD's policy requires that all electronically filed returns with credits greater than an established dollar amount, as well as a specified percentage of credits less than that amount, be selected for post-processing verification purposes. The verification process includes matching the credits claimed on the Maryland tax returns with the taxes paid as reflected on supporting documentation, such as out-of-state tax returns, that RAD obtains from the taxpayers.

RAD generated automated reports from SMART to initially identify all credits claimed, but these reports were not used to select returns for the verification process. Rather, the resultant information from the automated reports was copied to manual reports, which we found were not always complete and accurate.

Consequently, certain returns that should have been verified were omitted from the process.

We compared the automated reports and related manual reports for returns filed in April 2010 for tax year 2009, which was the most recently completed period verified by RAD at the time of our audit. We identified 192 returns for which claimed credits totaling approximately \$1.5 million were erroneously excluded from the manual reports and, therefore, were not subject to the required verification process. The omitted credits included 35 (totaling \$776,000) that exceeded the established dollar threshold that should have been verified; the remaining credits were under the threshold and would have been subject to selection (on a test basis) for verification purposes.

From this same period, we identified an additional 47 returns for which only a portion of the total credits claimed appeared on the manual reports. This occurred because of the treatment of returns claiming a credit from multiple states. While the system reports identified all such credits, the manual reports captured only the largest dollar value credit from each filed return. Each of the 47 returns we identified claimed out-of-state tax credits for taxes paid in two or more other states and, in each instance, collectively the credits claimed exceeded the threshold amount for mandatory verification. However, because only a portion of the claimed amount was included on the manual reports, none of these returns were selected for verification purposes. Credits claimed on these 47 returns totaled \$688,000.

For tax years 2009 and 2010, approximately 1,100 and 1,800 taxpayers, respectively, filed electronic returns claiming out-of-state tax credits exceeding the dollar amount requiring verification. These credits totaled \$36.1 million and \$66.3 million, respectively.

## **Recommendation 2**

### **We recommend that RAD**

- a. implement procedures to ensure that all out-of-state tax credits claimed are identified for verification purposes and are subject to verification in accordance with RAD's established criteria, and**
- b. determine the propriety of the aforementioned credits erroneously excluded from the verification process.**

**Finding 3**

**Post-processing reviews of certain out-of-state tax credits were often untimely and were not subject to supervisory review and evaluation.**

**Analysis**

Post-processing reviews of out-of-state tax credits claimed on electronically filed tax returns were not conducted in a timely manner and were not subject to supervisory review to ensure that adequate follow-up steps were taken.

Specifically, we noted the following conditions:

- RAD's post-processing reviews of 1,960 returns with out-of-state tax credits for tax years 2008 and 2009 filed between April 2009 and June 2010 disclosed that the returns were not assigned to employees for verification purposes until approximately 24 to 30 months after the returns were filed. In addition, as of August 2012, reviews for 288 of the returns had not been completed and, for 86 of those returns with credits totaling \$560,000, three years had passed since the returns were filed. Consequently, RAD may be prohibited from collecting any taxes that may ultimately be due for these returns since State law generally limits an assessment of income taxes beyond this period, except in certain situations, such as a willful attempt to evade taxes.
- As of July 2012, there were an additional 403 returns, relating to tax years 2009 through 2011, with out-of-state tax credits totaling \$18.8 million—each exceeding the dollar threshold requiring verification—that had been filed 20 to 24 months previously, but had not yet been assigned for review.
- The post-processing out-of-state tax credit reviews conducted by RAD employees were not subject to supervisory review and approval to ensure that appropriate documentation was obtained and the proper conclusions were reached.

**Recommendation 3**

**We recommend that RAD**

- a. assign and complete post-processing reviews of out-of-state tax credits on a timely basis; and**
- b. ensure that the results of the post-processing reviews are subject to supervisory review and approval, at least on a test basis.**



**Finding 4**

**Procedures were not in place to ensure that taxpayers reported valid social security numbers for dependents claimed on their individual income tax returns.**

**Analysis**

Procedures were not in place to ensure that all taxpayers reported valid social security numbers for dependents claimed on their individual income tax returns. Such procedures are critical since an invalid number calls into question the validity of the reported dependent, as well as any tax benefit derived from reporting the dependent, such as from a claimed exemption. Based on RAD's records, we estimated that taxpayers claimed 1.9 million dependents on individual income tax returns for tax year 2010, which would be subject to validation. Although our limited testing of dependent social security numbers did not disclose any apparent invalid numbers, proper validation is critical because each dependent reported allows the taxpayer to claim a deduction against the taxpayer's income of up to \$3,200 subject to certain adjusted gross income thresholds.

A similar finding was commented upon in our preceding audit report. In its response to that report, RAD noted that it was exploring certain corrective measures: (1) validating dependent social security numbers through the Internal Revenue Service (IRS); (2) developing business rules for validating dependent social security numbers in the MITS integrated tax system component then under development, but now abandoned; and (3) including dependent social security numbers in a deceased file match.

During our current review, RAD advised us that the IRS validation process was attempted for electronically filed 2010 tax returns, but it was discontinued because the follow-up on the results was inefficient and was not cost-effective. As of March 2013, RAD was continuing to make certain changes to the process in an attempt to address these issues, as well as to include paper returns in the validation process. Dependent social security numbers were also not yet included in RAD's deceased file match. Finally, certain limited procedures previously in place to assist in detecting the use of duplicate social security numbers for dependents had not been performed during the primary filing season for tax year 2011.

**Recommendation 4**

**We recommend that RAD take steps to ensure the validity of dependent social security numbers reported by taxpayers on their individual income tax returns (repeat).**

**Finding 5****An automated report of questionable tax returns identified for review purposes did not capture all returns meeting the criteria.****Analysis**

An automated output report that identified individual income tax returns submitted without required tax withholding documentation for RAD review and follow-up purposes contained a programming error that significantly under-reported the number of returns identified. Specifically, the report only captured a limited number of tax returns for which the required withholding documentation was not submitted.

The applicable reports generated for tax years 2008, 2009, and 2010 identified for review 592 returns with unsupported tax withholdings totaling \$237,378. After our inquiries, RAD corrected the programming error and re-ran the reports. The corrected reports for the same period identified an additional 2,834 returns that had unsupported tax withholdings totaling \$878,737. These results excluded an additional 270 tax returns identified, claiming withholdings of approximately \$1.1 million applicable to tax year 2008, that were not reviewed because of the applicable statute of limitations. Specifically, State law generally limits an assessment of income taxes when three years have passed since the returns were filed.

The SMART system includes certain edit functions that identify questionable returns based on pre-defined situations, such as a taxpayer's history of filing improper returns, paper returns filed without required documentation, and a refund amount claimed by the taxpayer that differs from the amount calculated by the SMART system. Output reports of these returns are generated for review and follow-up by RAD employees, such as requests for additional documentation from taxpayers.

**Recommendation 5****We recommend that RAD ensure that output reports of questionable tax returns identified by the SMART system are accurate and complete.**

**Finding 6****Accountability and verification procedures for refund checks need to be improved.****Analysis**

Procedures used to account for and verify income tax refund checks need to be improved. Specifically, we noted the following conditions:

- RAD did not adequately account for all refund checks returned by the post office as undeliverable or returned by taxpayers (in cases of error or death of taxpayer, for example). Returned refund checks were recorded in a log and investigated to determine if the checks should be voided (because the correct address could not be found) or re-mailed. The unit responsible for verifying the proper disposition of all returned checks did not compare the resultant actions to the original log of returned checks. Rather, the unit relied on logs controlled by the employees responsible for researching and determining the proper disposition of the checks. In addition, this unit's verification of re-mailed checks did not include a review of the actual record of checks mailed as prepared by the employee who mailed them. These conditions were commented upon in our preceding audit report. According to RAD's records, returned refund checks totaled approximately \$29 million in fiscal year 2011.
- Required verifications of the propriety of replacement refund checks issued were not always performed on a timely basis, and for some periods, were not performed at all. For example, none of the approximately 26,400 checks issued between August 2009 and June 2010 totaling \$35.3 million were subject to this verification procedure. Replacement refund checks are issued, for example, when a stop payment is placed on the original check lost in the mail.
- RAD did not independently investigate differences between the number of refund checks printed and submitted for mailing and the number of checks recorded as mailed. RAD used a receipt form to document the number of printed checks forwarded to the mailroom for mailing and the number of checks subsequently mailed. In the presence of the employee delivering the printed checks, the mailroom employee confirmed the number of checks received for mailing and subsequently documented the number of checks mailed on the receipt form. However, there was no independent verification performed to ensure the number of checks received to be mailed agreed with the number of checks actually mailed, and that any differences were researched and resolved.

Our review of the receipt forms for 18 days between May 2011 and March 2012 disclosed that, on 2 days, the number of checks mailed was not recorded by mailroom personnel and, on 4 days, the number of checks mailed did not agree with the number of checks prepared and there was no documentation that these differences were investigated and resolved. For example, for one day, the number of checks prepared (7,714) exceeded the number of checks mailed (7,414) by 300. According to RAD's records, during calendar year 2011, approximately 738,000 refund checks were issued totaling \$758 million.

### **Recommendation 6**

#### **We recommend that RAD**

- a. verify the proper disposition of returned refund checks by agreeing the original log of returned checks to the record used to verify the disposition of those checks (repeat);**
- b. use the log prepared by the employee responsible for re-mailing returned checks to verify the proper disposition of those checks (repeat);**
- c. ensure that the propriety of replacement checks issued is subject to verification on a timely basis, including the aforementioned 26,400 replacement checks; and**
- d. independently investigate and resolve differences between the number of refund checks printed for mailing and the number of checks mailed, including for the six days noted above.**

### **Adjustments to Taxpayer Accounts on SMART System**

#### **Finding 7**

**Significant adjustments to taxpayer accounts on the SMART system were not always reviewed as required.**

#### **Analysis**

Significant adjustments made to taxpayer accounts on the SMART system, such as to reduce an individual or corporate tax liability based on an amended return, were not always reviewed by supervisory personnel in accordance with RAD's procedures. In addition, one unit's procedure to identify adjustments for review did not provide assurance that all adjustments processed by that unit were identified for review purposes.

Our review of 15 adjustments, which reduced taxpayer liabilities by \$81.2 million, disclosed that the supporting documentation substantiating 7 adjustments for \$28.3 million had not been reviewed by supervisory personnel even though required by the applicable unit's procedures.

Furthermore, although supervisory personnel in most units we examined used automated reports of adjustments processed to identify adjustments for review, one unit that handled certain complex corporate tax returns used documentation prepared by employees who processed the adjustments. Consequently, there was a lack of assurance that all adjustments processed by the unit were subject to review.

#### **Recommendation 7**

**We recommend that RAD**

- a. ensure that significant adjustments to taxpayer accounts are reviewed by supervisory personnel in accordance with RAD's procedures, and**
- b. use automated reports of adjustments processed to identify adjustments for review.**

### **Information Systems Security and Control**

#### **Background**

RAD supports processing for several key tax systems. The most significant tax systems supported include the system for the individual and corporate income taxes and the sales and use taxes (SMART), and the motor fuel tax system. RAD's centralized automated support for these systems includes processing tax remittances, tax returns, and tax refunds. The automated applications for these systems operate on the Comptroller of Maryland – Information Technology Division's (ITD) Annapolis Data Center mainframe computer, with security software used as the primary means to protect the applications and related tax data.

Additionally, the SMART system includes the iFile, bFile, and Bill Pay systems. RAD operates these web-enabled systems that allow individuals to file individual income tax returns (iFile), businesses to file returns for employer withholding taxes and sales and use taxes (bFile), and individuals and businesses to pay taxes (Bill Pay) over the Internet. Based on the records of the Comptroller of Maryland, the following amounts were paid using the online filing services during fiscal year 2012:

**Table 2**  
**Taxes Paid Using Online Filing Services**  
**Fiscal Year 2012**

Tax Type	Approximate Amounts Paid
Individual Income Taxes (iFile)	\$116.5 million
Employer Withholding Taxes (bFile)	\$2.1 billion
Sales and Use Tax (bFile)	\$2.1 billion
Bill Pay	\$33.5 million

Source: RAD

The iFile, bFile, and Bill Pay systems are three-tiered, consisting of a website tier, an application software tier, and the back-end database tier. The physical servers supporting these systems reside in the ITD’s Annapolis Data Center computer room. According to Comptroller’s records, 216,911 individual income tax returns were submitted using the iFile service and 1,094,591 business returns were submitted using the bFile service during fiscal year 2012.

**Finding 8**  
**Security software and database monitoring controls over critical systems were not adequate.**

**Analysis**

Security software and database monitoring controls over the SMART, iFile, and motor fuel tax systems were not adequate. Specifically, we noted the following conditions:

- Reviews of the security software logs of changes to userids and security software rules governing certain SMART and motor fuel tax system components did not include an examination of the documentation supporting these changes to ensure the propriety of the changes made.
- Detailed change reports supporting the items identified on a critical security system software report for the SMART system, such as changes in tax rates or tax liabilities, were not reviewed to ensure that the changes were proper.

- Security reports for the iFile database did not include critical security events related to changes to audit policies, changes to user rights, and turning off the audit function. As a result, certain significant system activities were not properly monitored.

The State of Maryland Department of Information Technology's (DoIT) *Information Security Policy* requires that information systems generate audit records to ensure accountability for security-relevant events and that audit records are routinely reviewed by appropriate officials for suspicious activities or suspected violations and to report findings for prompt resolution.

### **Recommendation 8**

**We recommend that RAD implement appropriate security software and database monitoring controls over the SMART, iFile, and motor fuel tax systems. Specifically, we recommend that RAD**

- a. ensure that security software logs of changes to userids and security software rules governing SMART and motor fuel tax system components are verified against the supporting documentation for propriety;**
- b. ensure that reviews of the propriety of the critical security system software reports for the SMART system include a review of the supporting detailed change reports; and**
- c. ensure that all critical security events for the iFile database are logged, reviewed, and retained for audit verification purposes.**

### **Finding 9**

**Sensitive personally identifiable information was unnecessarily stored in plain text on a publicly accessible iFile web server and controls over the security of sensitive taxpayer information in various systems need improvement.**

### **Analysis**

Sensitive personally identifiable information (PII) was unnecessarily stored in plain text on an iFile web server and controls over the security of sensitive taxpayer information need improvement. Specifically, we noted the following conditions:

- Certain iFile users' sensitive PII (first and last names and social security numbers) from prior tax years was unnecessarily stored in plain text on a publicly accessible iFile web server. We identified 75,219 records on this web server containing sensitive information that would be accessible to unauthorized individuals if the related server were compromised. This

sensitive PII is commonly sought by criminals for use in identity theft. Accordingly, appropriate information system security controls need to exist to ensure that this information is safeguarded and is not improperly disclosed. A similar condition was commented upon in our preceding audit report.

- RAD implemented numerous controls to secure sensitive taxpayer information (such as social security numbers, employer identification numbers, and bank account and related routing numbers) in various systems. Specifically, RAD has implemented firewalls, intrusion detection prevention systems, data loss prevention software, and encryption of such data in transit. However, additional security controls, as follows, should be implemented to further mitigate the risk of exposure or loss of such sensitive information.
  - Users with privileged access to the network, servers, and databases that housed RAD tax systems did not use two-factor authentication for network authentication. Two-factor authentication requires the use of two of three authentication factors. The factors can be something the user knows (such as a password), something the user has (such as a security token), and something the user is (such as a fingerprint), and is harder to compromise than single factor authentication.
  - Database fields containing confidential taxpayer data were not encrypted in various tax systems.
  - RAD utilized data loss prevention software to scan outbound network traffic for sensitive information. However, its procedures did not block the transmission of questionable traffic (for example, traffic that may contain sensitive information) and unexpected encrypted traffic but, rather, allowed the transmission of such traffic and identified the questionable traffic for subsequent review.

DoIT's *Information Security Policy* requires that confidential information be protected with administrative, technical, and physical safeguards to ensure its confidentiality, integrity, and availability and to prevent unauthorized or inappropriate access, use, or disclosure. Implementation of two-factor authentication, encryption of critical database fields, and blocks by data loss prevention software would significantly enhance security controls over sensitive taxpayer information. Large-scale exposure or data loss of this sensitive taxpayer information would result in significant remediation costs to the State and a loss of taxpayer confidence in the ability of RAD to protect such data.



## **Recommendation 9**

**We recommend that RAD**

- a. remove the described sensitive PII from the publicly accessible server (repeat); and**
- b. implement additional controls to mitigate the risk of exposure or loss of sensitive taxpayer information. Specifically, RAD should require users with privileged access to the network, servers, and databases that house RAD sensitive taxpayer information to use two-factor authentication; should encrypt and appropriately protect all sensitive taxpayer information; and should use its data loss prevention software to block questionable outbound traffic and unexpected encrypted traffic.**

## **Cash Receipts**

### **Finding 10**

**Deposit verification procedures for certain collections were not sufficient.**

#### **Analysis**

Procedures used by RAD to help ensure that collections received in the mail were subsequently deposited were not adequate. For example, the employee who initially recorded alcohol and tobacco tax collections did not provide a copy of that record directly to the employee responsible for verifying collections to deposit. Instead, the record and the related cash receipts were first forwarded to a second employee who processed the collections and prepared the bank deposit. That employee then forwarded the record to the individual responsible for verifying recorded collections to deposit. Accordingly, the second employee was in a position to perpetrate and conceal a misappropriation of funds. A similar condition was commented upon in our preceding audit report on the Motor-Fuel, Alcohol and Tobacco Tax Division which, as previously mentioned, became a unit under RAD effective July 2009. Alcohol and tobacco tax collections received in the mail totaled approximately \$30.5 million during calendar year 2012.

Furthermore, for these alcohol and tobacco tax collections and certain other collections, we found that deposit verifications were not performed timely. Specifically, deposit verifications for alcohol and tobacco tax collections were performed on a monthly basis, rather than as deposits were made. Similarly, we tested certain other mail receipts totaling \$248.1 million (including individual and corporate income taxes, employee withholding, and sales and use taxes), that were collected over 12 days. Our test disclosed that, on 6 of these days, the

deposit verifications were performed 6 to 149 days after the deposits were made. For the other 6 days, although our testing verified that the collections were deposited timely, there were no employee signatures on the related bank documentation, as required by RAD's procedures, to document that the deposit verifications had been performed.

Under these conditions, errors or other discrepancies could occur without timely detection.

**Recommendation 10**

**We recommend that RAD**

- a. ensure that employees who prepare the initial record of collections forward a copy of that record directly to the independent employee responsible for performing the deposit verifications (repeat); and**
- b. ensure that deposit verifications are performed and adequately documented on a timely basis, as the deposits are made.**

## **Audit Scope, Objectives, and Methodology**

We have audited the Comptroller of Maryland – Revenue Administration Division (RAD) for the period beginning March 2, 2009 and ending February 14, 2012. The audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

As prescribed by the State Government Article, Section 2-1221 of the Annotated Code of Maryland, the objectives of this audit were to examine RAD's financial transactions, records and internal control, and to evaluate its compliance with applicable State laws, rules, and regulations. We also determined the status of the findings included in our preceding audit report, as well as the status of the findings in our audit report on the Comptroller of Maryland – Motor-Fuel, Alcohol and Tobacco Tax Division, dated July 28, 2010.

In planning and conducting our audit, we focused on the major financial-related areas of operations based on assessments of materiality and risk. The areas addressed by the audit included primarily the processing, evaluating, verifying, and recording of tax data as reported by taxpayers and other parties, the collection of tax receipts, and the distribution of tax refunds. Our audit procedures included inquiries of appropriate personnel, inspections of documents and records, and observations of RAD's operations. We also tested transactions and performed other auditing procedures that we considered necessary to achieve our objectives. Data provided in this report for background or informational purposes were deemed reasonable, but were not independently verified.

Our audit did not include certain support services provided to RAD by the Comptroller of Maryland – Office of the Comptroller. These support services (such as processing of invoices, maintenance of accounting records, and related fiscal functions) are included in the scope of our audits of the Office of the Comptroller. Our audit also did not include certain support services provided to RAD by the Comptroller of Maryland – Information Technology Division related to the procurement and monitoring of information technology equipment and services and the operation of the Annapolis Data Center. The operation of the Annapolis Data Center includes the development and maintenance of RAD applications and maintenance of the operating system and security software environment. These support services are included in the scope of our audits of the Information Technology Division.

RAD's management is responsible for establishing and maintaining effective internal control. Internal control is a process designed to provide reasonable assurance that objectives pertaining to the reliability of financial records, effectiveness and efficiency of operations including safeguarding of assets, and compliance with applicable laws, rules, and regulations are achieved.

Because of inherent limitations in internal control, errors or fraud may nevertheless occur and not be detected. Also, projections of any evaluation of internal control to future periods are subject to the risk that conditions may change or compliance with policies and procedures may deteriorate.

Our reports are designed to assist the Maryland General Assembly in exercising its legislative oversight function and to provide constructive recommendations for improving State operations. As a result, our reports generally do not address activities we reviewed that are functioning properly.

This report includes conditions that we consider to be significant deficiencies in the design or operation of internal control that could adversely affect RAD's ability to maintain reliable financial records, operate effectively and efficiently, and/or comply with applicable laws, rules, and regulations. Our report also includes findings regarding significant instances of noncompliance with applicable laws, rules, or regulations. Other less significant findings were communicated to RAD that did not warrant inclusion in this report.

The response from the Comptroller of Maryland, on behalf of RAD, to our findings and recommendations is included as an appendix to this report. As prescribed in the State Government Article, Section 2-1224 of the Annotated Code of Maryland, we will advise the Comptroller of Maryland regarding the results of our review of its response.

**APPENDIX**



**Peter Franchot**  
*Comptroller*

**David F. Roose**  
*Deputy Comptroller*

August 9, 2013

Thomas J. Barnickel III, CPA, Legislative Auditor  
301 West Preston Street, Room 1202  
Baltimore, Maryland 21201


Dear Mr. Barnickel:

Thank you for the opportunity to respond to your audit report on the Comptroller of the Treasury - Revenue Administration Division (RAD) for the period beginning March 2, 2009 and ending February 14, 2012.

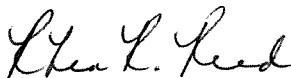
Enclosed are our responses to the recommendations contained in the audit report. We thank you and your staff for providing suggestions and recommendations, most of which have already been implemented, that will enable the Division to improve fiscal operations and strengthen internal controls.

If you desire any additional information, we will be happy to respond to your request.

Sincerely,



David F. Roose, Deputy Comptroller



Rhea R. Reed, Director  
Revenue Administration Division

RRR/liv

Enclosure

cc. The Honorable Peter Franchot

# **Responses to Findings and Recommendations**

## **Individual Income Tax Return Processing**

### **Recommendations 1, 2 and 3 – Out-of-State Credits**

We are providing a single response to findings 1 through 3 because we believe that they relate to one issue, the processing of out-of-state credits. We agree with the auditors' recommendations and have taken appropriate action with regard to the specific findings of the auditors.

We will be able to realize significant improvements in our ability to process these credits in the future due to improvements in technology. The legacy tax processing system did not allow for electronic transmission of supporting documents and schedules. Taxpayers who filed electronically and claimed credits requiring supporting documentation had to mail the required documents to the Comptroller, where those documents would be matched to the electronic return for post-processing review. This was a very labor-intensive process, which often had to give way to more immediate processing priorities that presented greater potential risk.

The new MeF (modernized eFiling) system supports the transmission of electronic documents, so that the supporting documentation for credits can be attached to the electronically filed return. Beginning with 2013 returns, RAD will implement processing rules to disallow credits for which the supporting documentation is not provided with the return, thus eliminating the need for the post-processing reviews and the attendant problems cited by the auditors.

### **Recommendation 4 – Validation of Dependent Social Security Numbers**

We agree that this issue was not resolved; however, the agency has made ongoing efforts to remediate this issue. At the time of the response to the previous audit report, the Comptroller's Office was developing business rules for validation of dependent SSNs in MITS. Once it became clear that MITS was not going to be in place to resolve this issue, we began researching alternative solutions. The solution within SMART, the existing tax system, involves complex programming changes. Due to the significance of the changes required, we have been working to implement interim solutions during this period of development to increase the scrutiny given to dependent SSNs. There have been multiple projects in place to support this review. There are both interim reviews (i.e. post-processing reviews) and groundwork that must be completed for the programming changes to be successful. This includes the creation of Form 502B, beginning with tax year 2011 returns, in order to capture dependent social security numbers in a format that would permit validation in the same manner as we validate primary and secondary SSNs on returns.

For the 2012 filing season (processing 2011 returns), for both paper and electronic, a post-filing verification of all dependent SSN's with the IRS was completed. A notice was sent to the primary taxpayer and advised that one or more of dependents on their 2011 return did not validate and they would need to provide correct information for 2012 or the dependent would be denied.

A post-filing verification with the IRS will be performed for the 2013 filing season (processing 2012 returns) for both paper and electronic filings. If the dependent SSN's can not be validated, the dependent deduction will be denied, and a balance due will be assessed against which subsequent refunds will be offset.

Programming has recently been completed for a pre-processing validation of dependent SSN's with the IRS. This is being tested and will be in production in September, 2013.

Programming and testing to support the identification of duplicate dependents has been completed and was put into production in October 2012 and will remain in production for the upcoming filing season.

Finally, we agree with the auditors' recommendation to include the dependent SSN match against the deceased file as we do for both primary and secondary SSNs, and plan to implement this enhancement as programming resources are available.

#### **Recommendation 5 – Review of Questionable Tax Returns**

We agree with the auditors' recommendation, and COM will continue to review the output reports for completeness and accuracy.

#### **Recommendation 6 – Accountability for Returned Checks**

We agree with the auditors' recommendations. While procedures had been put in place to address this issue after the prior audit, it is clear that additional training for employees is required. We have strengthened our procedures and re-trained employees to ensure compliance with those procedures.

### **Adjustments to Taxpayer Accounts on SMART System**

#### **Recommendation 7 – Review of Adjustments**

We agree with the auditors' recommendations. We have modified our procedures accordingly and reinforced with supervisory personnel the importance of compliance with the procedures as written. In addition to the routine supervisory reviews, we have created a system-generated monthly report of large adjustments for use by management to verify that all larger adjustments have been subjected to supervisory review.

## **Information systems Security and Control**

### **Recommendation 8 – Security Software and Database Monitoring Controls**

We agree with the auditors' recommendations.

The Agency will strengthen existing procedures to ensure userids are verified against supporting documentation, change reports are properly reviewed, and critical security events are logged, reviewed and retained.

### **Recommendation 9 – Sensitive Personally Identifiable Information**

We agree with the auditors' recommendations.

Protection of taxpayer information is a top priority for the Comptroller of Maryland. The referenced data have been permanently removed from all servers and are not subject to replication.

We are continually enhancing our security controls in order to protect taxpayer information. We are implementing two-factor authentication for the Agency's internal network. Currently, two-factor authentication is required and is in production for all privileged technical administrators with access to network devices, servers and databases.

As recommended and required by the State's IT Security Policies and industry standards, we will continue to enhance our security controls to *protect confidential data using encryption technologies and/or other substantial mitigating controls (such as Data Loss Prevention, Network Security Event Monitoring and strict database change monitoring)*.

## **Cash Receipts**

### **Recommendation 10 – Deposit Verification**

We agree with the auditors' recommendations and have strengthened our procedures and trained personnel accordingly.

While we accept this finding and agree with the recommendation, we strongly object to the characterization of this item as a "repeat," as the previous audit report was issued to a different audit entity that was directed and managed by a different team, and the procedures were performed by different line personnel.



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