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DIVISION OF COUNTY AUDIT
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December 21, 2004

McNairy County Mayor and
Board of County Commissioners
McNairy County, Tennessee

To the County Mayor and County Commissioners:

In conjunction with the annual audit of McNairy County, we have performed a limited review of the information systems in the Offices of County Mayor, Highway Commissioner, Director of Schools, Trustee, Circuit and General Sessions Courts Clerk, Clerk and Master, and Register as of December 3, 2004. This letter transmits the results of our review.

Our audit of McNairy County is required to be conducted in accordance with standards contained in Government Auditing Standards, issued by the Comptroller General of the United States. These standards specify that we perform general and application control reviews of computer-based accounting and information systems to determine whether an entity's existing procedures and controls provide adequate assurance of data accuracy and financial and operating statement reliability.

Because of inherent limitations in any internal control structure, errors, irregularities, or control weaknesses may exist and may not be detected. However, our information system reviews performed in the Offices of Director of Schools, Circuit and General Sessions Courts Clerk, Clerk and Master, and Register did not reveal any matters that we considered to be a reportable condition. Reportable conditions were identified in the Offices of County Mayor, Highway Commissioner, and Trustee. These reportable conditions may be included in the annual financial report of McNairy County. These matters are also presented in detail in the enclosed Review of Internal Controls Regarding Information System Operations — Findings and Recommendations.

A brief summary of the reportable conditions by office is presented below:

COUNTY MAYOR

1. The office had deficiencies in computer system back-up procedures.
2. The office had not implemented adequate controls to protect its information resources against unauthorized modification.

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HIGHWAY COMMISSIONER

1. The office had deficiencies in computer system back-up procedures.

TRUSTEE

1. The office did not have formal policies and procedures for computer operations.

Please contact Penny Austin, our Information Systems Audit Manager, or me if you have any questions regarding our review of the information systems in the aforementioned offices of McNairy County, Tennessee.

Sincerely,



Richard V. Norment
Assistant to the Comptroller

RVN: pa

Attachment

cc: The Honorable Tom Hill, Highway Commissioner
The Honorable Charlie Miskelly, Director of Schools
The Honorable Stanley Mitchell, Trustee
The Honorable Ronnie Brooks, Circuit and General Sessions Courts Clerk
The Honorable Fairy Hunter, Clerk and Master
The Honorable Brian Neal Dickey, Register
Mr. Norm Norment, West Tennessee Audit Manager

MCNAIRY COUNTY, TENNESSEE
REVIEW OF INTERNAL CONTROLS REGARDING INFORMATION SYSTEM
OPERATIONS — FINDINGS AND RECOMMENDATIONS
AS OF DECEMBER 3, 2004

The review of controls over the information systems in the Offices of County Mayor, Highway Commissioner, and Trustee indicated a need for improvement. It should be noted that this was the first information system review performed in the Offices of Highway Commissioner and Trustee. The following findings and recommendations have been made to aid the offices in the implementation of controls to better secure their computer systems and the information contained therein. We reviewed these matters with management to provide an opportunity for their response. Management offered oral responses to these items but did not submit written responses. We did not include the oral responses in this report.

OFFICE OF COUNTY MAYOR

THE OFFICE HAD DEFICIENCIES IN COMPUTER SYSTEM BACK-UP PROCEDURES

1. FINDING

The following weaknesses regarding computer system back-up procedures in the office were identified:

- A. System backups were not stored off site. In the event of a disaster, all back-up data could be destroyed, resulting in costly delays in generating and recording information accounted for through the automated process.
- B. A back-up log was not maintained. If system backups are not labeled and inventoried systematically, discrepancies may occur and affect the integrity of system backups in the event of a hardware or software failure.

RECOMMENDATION

Weekly backups should be rotated off site on a weekly basis. Year-end backups should be stored off site and retained indefinitely. Some possibilities for an off-site storage location would be another county office building with a fireproof vault or a safe deposit box at a local bank. Furthermore, a current log of all backups that includes label descriptions, date of creation, contents, and storage location should be maintained.

**THE OFFICE DID NOT IMPLEMENT ADEQUATE CONTROLS TO
PROTECT ITS INFORMATION RESOURCES AGAINST UNAUTHORIZED
MODIFICATION**

2. FINDING

The office did not implement adequate controls to protect its information resources against unauthorized modification. The failure to provide such controls increases the risk that individuals could inappropriately manipulate the county's sensitive information.

This finding does not identify specific vulnerabilities that could allow someone to exploit the office's information system or misuse county funds. Disclosing those vulnerabilities could present a potential security risk by providing the readers with information that might be confidential pursuant to Section 10-7-504(i), Tennessee Code Annotated. We provided the official with detailed information regarding the specific vulnerabilities we identified, as well as our recommendations for improvement.

RECOMMENDATION

The office should ensure that adequate controls over information systems and the resources associated with those systems are implemented. Also, the office should take steps to establish or improve any compensating controls until these conditions are remedied.

OFFICE OF HIGHWAY COMMISSIONER

RECOMMENDATION

1. SYSTEM BACK-UP PROCEDURES SHOULD BE IMPROVED

The following procedures regarding the system back-up process should be implemented:

1. Weekly backups should be rotated off site on a weekly basis.
2. A secure, fireproof location should be used to store weekly and year-end backups. Some possibilities for an off-site storage location would be another county office building with a fireproof vault or a safe deposit box at a local bank.
3. A current log of all backups that includes label descriptions, date of creation, contents, and storage location should be maintained.

OFFICE OF TRUSTEE

RECOMMENDATION

1. **MANAGEMENT SHOULD FORMALLY DOCUMENT POLICIES AND PROCEDURES FOR COMPUTER OPERATIONS**

Management should prepare a computer policies and procedures manual that defines policies and procedures for operations such as system startup/shutdown, application access, system access security, system backup and retention schedules, output distribution, hardware/software maintenance, and other general data processing functions. Upon completion, the manual should be distributed to all appropriate personnel.

PRIOR AUDIT RECOMMENDATIONS IMPLEMENTED

(Ref: Review of Internal Controls Regarding Information System Operations as of April 4, 2002)

OFFICE OF DIRECTOR OF SCHOOLS

Finding Number	Page Number	Subject
1	1	The Office Had Not Implemented Adequate Controls to Protect Its Information Resources

OFFICE OF CIRCUIT AND GENERAL SESSIONS COURTS CLERK

Finding Number	Page Number	Subject
1	2	The Office Had Deficiencies in Computer System Back-up Procedures
2	2	The Office Did Not Develop a Disaster Recovery Plan
3	3	The Office Did Not Have Formal Policies and Procedures for Computer Operations