AUDDITOR’S REPORT

CONTINUOUS AUDITING ANALYTICS
CHANGE CONTROL MANAGEMENT
FOR THE THREE MONTH PERIOD
ENDED NOVEMBER 30, 2016

March 31, 2017

Michael Post, C.P.A., M.B.A.
Harris County Auditor
March 31, 2017

Mr. Gary Gray  
First Assistant County Auditor  
1001 Preston, 8th Floor  
Houston, Texas 77002

RE: Continuous Auditing Analytics Change Control Management for the three month period ended November 30, 2016

The purpose of this letter is to present the results of the Continuous Auditing Analytics Change Control Management Review for the three month period ended November 30, 2016. Through the use of automated tools, the department monitors key data tables on a daily basis of the County’s Integrated Financial and Administrative Solution (IFAS) system to ensure that any changes conform to relevant policies and procedures. Our procedures included the following analyses:

1) A daily analysis to monitor change controls relative to security, configuration, and user access on IFAS.

The enclosed Auditor’s Report presents information concerning Change Control Management performed during the period. While a few minor items were identified, none were significant. We appreciate the time and attention provided by you and your staff during this ongoing engagement.

Sincerely,

Michael Post  
County Auditor

cc: District Judges  
County Judge Ed Emmett  
Commissioners:  
   R. Jack Cagle  
   Rodney Ellis  
   Jack Morman  
   Steve Radack  
   Kim Ogg  
   Vince Ryan  
   William J. Jackson
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BACKGROUND
The Auditor’s Office - Continuous Auditing (Continuous Auditing) Department performs auditing activities on an ongoing basis. This includes, but is not limited to, the Change Control Management analysis that monitors changes within IFAS.

CHANGE CONTROL MANAGEMENT ANALYSIS
Monitoring Change Control Management is important, as changes to the financial system can affect not only what Harris County (County) personnel can do, but also how the system is configured to perform. For example, access should be assigned to County personnel on a “need to know” or “need to do basis”. Unapproved changes to the system may create an issue with system security, configuration, or unauthorized access (e.g., the ability to post and approve transactions). Therefore, changes to security, configuration, and user access is monitored to ensure that system controls are in place and functioning as intended.

While Central Technology Services (CTS) is responsible for supporting IFAS and its data, Continuous Auditing works with CTS to monitor changes to IFAS to ensure the data is properly maintained. On a daily basis, Continuous Auditing performs the following procedures:

- Obtains a download of key system tables provided by CTS.
- Compares every data element on key tables with the value from the previous day, noting any changes.
- Determines if the changes impact system security, configuration, or user access to financial systems.
- When necessary, obtains appropriate documentation showing management approval.

Daily, the Change Control Management Analysis performs over 4.3 million comparisons and identifies an average of 3,500 changes. As it is management’s responsibility to approve changes and assess potential impact, Continuous Auditing does not evaluate the appropriateness of the change itself. The purpose of the analysis is to verify that proper Change Control Management is followed, ensuring the integrity of the system security, configuration, and user access to financial systems.

The majority of the changes do not affect security, configuration, or user access and require no further review. The remaining changes are analyzed to determine if the change requires supporting documentation. The chart below illustrates how the reviewed changes were resolved:
The top section of the chart reports the reviewed changes that required an analytical assessment by Continuous Auditing. As a result of this assessment, Continuous Auditing was able to close the changes without requesting additional documentation (e.g., changes that decreased user access to the system).

The second section of the chart indicates changes that required management approval and supporting documentation. The changes that occurred in October are ones expected to occur on a monthly basis, such as changes to payroll, personnel access and routine system maintenance.

- For the month of September, the changes requiring management approval increased due to a request from Payroll to update descriptions on payroll tables and modifications to critical tables, requested by the Financial Accounting department.
- During the month of November, the increase was related to the open enrollment for benefits for retirees. In addition, Financial Accounting requested modifications to critical tables, which added to the changes.

The third section of the chart illustrates the reportable items for each month. Reportable items are changes that were made without management approval or not performed properly. In the month of November, two (2) reportable items were identified related to an improper check transaction in the amount of zero (0) dollars. Central Technology Services (CTS) was notified of the transaction and they performed the necessary corrections to remove the error. The error was addressed in appropriate time and did not pose an immediate risk to the functioning of IFAS.
For the three month period ended November 30, 2016, Continuous Auditing noted two (2) reportable changes to IFAS. The reportable changes were addressed by CTS and do not appear to have posed a risk to IFAS security, configuration, or user access.

RESULTS