

Computer Corner

The Need for a Virtual Paper Trail – Checks & Balances

Spending my work days as I do, helping one person after another perform duties associated with utility billing, I get to work with a great many bright and dedicated public servants who pride themselves on maintaining clear and accurate records. Unfortunately, there are some exceptions. Once in a while I find someone who takes on the responsibility of the public's trust who is not up to the job. Sometimes it is the lack of organizational skills, lack of attention to detail or not doing things in a timely fashion. Sometimes it is just plain apathy, laziness, or worse, dishonesty.

It seems like in the last year I have been working with a new crop of newly hired city clerks and water district personnel who have struck me as being particularly sharp and committed to doing a good job though they have inherited varying degrees of messes that need to be cleaned up. These clusters range from things like poor documentation all the way to outright criminal activity.

Sitting at my technical support desk for several decades, none of these problems are new. This last year however has been particularly heavy with these kinds of problems.

One of those previous city clerks is sitting behind bars even as I write this. And, where does the blame lie? Well, with the perpetrator of course! However, not one of the crooked



situations I refer to could have gone on past a single month if the folks where the buck stops – the boards and councils – could be educated to keep a sharp eye on the virtual paper trail and require appropriate monthly reporting.

That said, not just any old official-looking computer printout will do. I can recount quite a list of RWD board members who were presented with a bevy of monthly reports that didn't do a thing to demonstrate what was actually going on financially in that office.

The board of directors of one water district would find a pile of reports in their board meeting packets each month. The problem was that not one of those reports came from the utility software the office clerk used to track customer information. Instead they were Excel spreadsheets mocked-up to hide the fact that there was no cash

making it to the bank, or to obscure the practice of showing an account paid off not by applying payments but instead hand entering credits to leave the patron with a zero balance while their cash went into the clerk's pocket. These mocked-up reports also hid the lack of charges applied to the accounts of friends of the clerk. Adding to the problem, this was a self-read water district, i.e., a water system in which customers read their own meters and submit the readings with payments that are taken from a rate chart or hand calculated. This method required no sending of bills to customers; the patrons never saw any bill with fields like "Date of Last Payment" or Amount of Last Payment", or any record of charges or anything,

so the customers couldn't serve as their own watchdog. This problem went on for about a decade in this Kansas water district.

In another case, the district, at the behest of their head clerk, had fired the assistant who had been hired to help her under suspicion of embezzlement. The head clerk had the board bamboozled into thinking she was a meticulous stickler for documentation. In her case, she didn't mock up Excel spreadsheets, no... not at all, she provided daily cash reports directly out of their utility billing software that matched PERFECTLY with each day's deposit to the bank. Of course, what the board didn't realize was the reason the cash receipt report totals were identical to each deposit total was because each report was printed directly after all the checks were applied and BEFORE any cash was applied. The cash, of course, disappeared into her pocket.

In both cases if the governing bodies had required a single page Management Report printed directly from the utility software, not mocked-up for their viewing, and printed at the end of an ENTIRE utility cycle to capture exactly what went on in that cycle, and compared that to the full month's utility deposits to the bank, both crooks would have been thwarted in the first month they tried anything. That is, if the Report gave a complete picture of the month's activities.

One of the most important elements of that picture would be that the report would show the total of payments applied during that cycle to be compared to what the bank reports show was deposited for utilities in that same period of time, (and I do mean the bank itself – not a report that claims what was deposited).

Further, if that same one-page report breaks down the charges for

water, sewer, trash, connect fees, reconnect fees, bad check fees, benefit unit fees, labor fees, parts fees, Water Protection Fees, Credits (i.e. hand-added negative fees) etc., it would make it difficult for anyone to expunge debt in order to make off with the cash paid.

Drugs for water bills

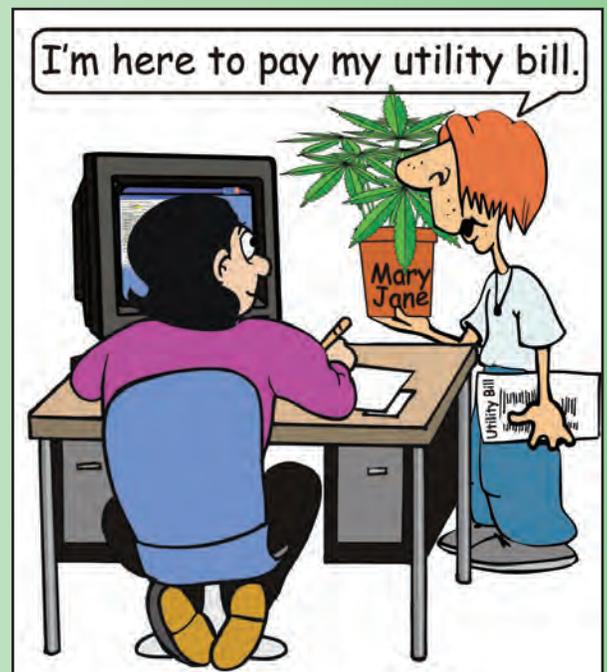
Clerks paying their drug dealers by altering their accounts? Sound like fiction? Not at all. One little town had a clerk altering multiple accounts in exchange for drugs over a period of about a year. She used several methods. Sometimes she would expunge the charges and usages; sometimes she would add negative charges, i.e., credits. Sometimes she would alter the beginning balance field causing the balance owed to be less by what was often hundreds or even more than \$1,000, and sometimes she would take the most direct approach of applying a payment of money that didn't exist. How could she get away with such behavior you ask? Well, it probably didn't hurt that her boss, the mayor, was also altering his own account for free services.

The mayor resigned and moved away and the clerk was arrested followed by an in-depth investigation. The fact is, she couldn't have left a more obvious virtual paper trail of her misdeeds if she had tried. It is easy to track back and see what she did and even when she did it. Had anyone been properly minding the store her activities would have been, as Barney Fife would say, "nipped in the bud".

Fortunately, the latest clerk is intelligent, conscientious and, most of all, honest. That by the way is the primary description every applicant for the job should have going for them.

Interrogated by the police she gave up some of her confederates. One of those fellow thieves, eager to convince everyone that he was not dealing drugs, blurted out that, while they knew she was padding their account, it was just because they were friends, it had nothing to do with drugs. What a genius! He just admitted to being part of conspiracy to commit embezzlement.

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Procedures to help ensure a good system of Checks & Balances

AVOID RATE FORMULAS THAT MIX USAGE AND MINIMUMS: Some water systems already have a leg-up in tracking their monthly business by the way their rate formulas are designed. By this, I mean that those that do not mix water or any other usage, i.e., electric, gas, etc., with minimums and have one steady rate for whatever they sell. In other words, if a system has 300 active customers with a minimum of \$10 per month for water, then they know the total for the minimum charged for the month should be \$3000, and they know if it is, there has been no tampering to change it.

A STRAIGHT UP NON-STEP VALUE RATE WORKS BEST FOR AUDITS: If the town or district charges a straight \$5 per thousand with no declining scale and the monthly report shows a total of water sold for the month to be 1,200,000 gallons then they know the water usage charge total must be \$6000. Not all water systems can set up such simple rates, and, even those that do may have some special situations to consider, but those that can make their rates as simple as possible create an easy means of monitoring for editing of charges. This advice also applies to sewer, electric and gas too.

AN ACCOUNT ALTERATION LOG SHOULD BE SCRUTINIZED: If the software being used provides a log of hand alterations to accounts, then, that too can provide a place to see what has taken place. This should be one of the places to check for alterations in payments, charges, previous balances, pushing readings forward to avoid usage and more.

MATCH THE TOTAL OF PAYMENTS FOR THE MONTH TO MONEY BANKED IN THE SAME PERIOD TO THE PENNY: The month end report should definitely provide the total payments received which should ALWAYS match money put in the bank "To The Penny". If credit cards are taken, then those payments must be separated out and tracked with the same precision as checks and cash.

A PREVIOUS BALANCE FIELD SHOULD NOT BE USED FOR CORRECTIONS TO THE ACCOUNT: Whatever the total balance due reads on one month's end of cycle report should exactly match the previous balance total on the end of the cycle report the next month. An explanation should be required if it does not. If corrections/alterations need to be made to an account, like rescinding a late charge at the behest of the council, the change should be made in an obvious and transparent and well-explained manner, not by forcing a change to the beginning balance that leaves no mathematical explanation.

COMPARE MONTHS: While looking at reports from nearby months to match the Total Balance Due from one month to the Previous Balance field in the next month, make other comparisons like number of customers (number that may increase or decrease), Water Sold, Total of charges like Water, Sewer, Trash, Other, Adjustment, Connect, NSF, etc.

WATER LOSS: It is wise to do a water loss report, i.e., comparing the total water the computer says was distributed to the water purchased or pumped. Over the years I have seen several instances where, through confusion or lack of training a meter reader has brought back readings for some accounts in the wrong register or even a meter distributor setting up some of the meters in the wrong register. I once discovered where a town was reading a nursing home in such a way that every time they used 1,000 gallons the town only reported them at 100. It was when they followed my advice to do a timely water loss report, using the data directly from the utility program instead of a spreadsheet that they discovered their error.

what a computer wiz she was. The mayor bemoaned the fact that it is just so hard to find a computer expert in a small town. I told him to stop worrying about finding a computer expert. Just hire a smart personable, fastidious, honest person, because you can't teach those things, but you can teach everything else the clerk will need on her tool belt.

Of course clerks are not the only people who virtual trails can catch being up to no good. I recently received a phone call from a clerk; she is one of those cleaning up from a previous clerk who wasn't particularly conscientious. What she was describing to me didn't sound possible. I connected only with computer and started studying her data. She had a customer who she had just discovered was missing the lion's share of his data. His number was still there but his name, charges, payment, and rate formulas, among other things, were gone. And yet, there was no record of these hand alterations in the Audit Log, the tool that monitors any changes made to any account, providing information on how each field has been changed, what it was changed to, even the date and time the altering was made. As I continued doing what I call, "Forensic Computing", i.e., examining the dead body of data after-the-fact, I saw that another log, the payment log, had three payments for this account, all made on the same day, all within a few seconds of each other. This also revealed that the customer was intact for the first two payments, one for \$50 plus and the other for only \$1. But, the third payment was for \$0.00 and with the entry of this bogus payment the person at the keyboard had, at that payment entry screen, attempted to obliterate most the information about this person.

I proceeded to tell her a story about another city clerk who had a new mayor who was clearly out to get her. That mayor was formerly an alderman who had taken over for his buddy the mayor who had to resign in disgrace. The clerk had called me when she was being criticized by him and his cronies after the meter reader, also a detractor of her's, had come to them complaining she had entered in a number of bogus readings during the last billing. She told me that she didn't understand how this could be.

I connected with her over the Internet and after looking over the data I realized that while she was entering readings she must have had to leave the office for a few minutes, at which time, another person in the office sat himself down at her desk and hit the estimate button twenty-one times before she reentered the room to find him sitting at her desk. At first she said, "I didn't leave for anything". Then she recalled, "Well, I did have to step out for a minute or so. And, you know, the mayor was there at the computer when I walked back in saying he was just looking something up." She used a ruler to show which one she left off entering, so, when he moved the ruler down to each of the next patrons, she just assumed the ruler was positioned where she left off.

After I told the clerk that story, I asked if anyone was out to get her and I asked who would have been in her office on that day in that very minute

during a time she had to step away. "Oh my gosh, she replied, I know exactly who did this, and you won't believe it but it was our former mayor and the account he did it to is our current mayor!"

On the subject of embezzlement and other efforts to purposely foul records for whatever reason, people often will say... "I could never do that, I'm just not that smart". Don't give embezzler's a compliment they are likely not due. Most are not particularly smart, and further, they do leave a trail. In fact, frequently their work is chaotic and a mess. They are people who will take advantage of any weakness they find in the way things are managed.

It is important that every town and every water district have a monthly system of checks-and-balances in place, not because they don't have faith and trust in their personnel but because they owe it to the public to have a steady and credible system of

accounting for payments and charges. They also owe it to their staff to provide the means to demonstrate that their work is beyond reproach.. A reputation is one of our most important assets; financial transparency helps to keep that reputation unblemished.

Like I always say, "A total is the sum of it's parts". If in looking at these aspects the parts and the totals don't make sense, get to the bottom of it! And, even if you are not the person who usually is in contact with your software provider, call them for their guidance when in doubt.

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KANSAS RURAL WATER
association

ABOUT
ONLINE RESOURCES
TECHNICAL AS
MEMBERSHIP

Today November 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

- Administrative / Management
- Board / Council
- Cross Connect / Backflow Prevention
- Drinking Water Regulations
- Electrical
- Safety
- Water System Operations
- Wastewater Utility Operations

Don't be bashful in asking. Any request for a training session is held in confidence. KRWA will attempt to accommodate your request.

KRWA encourages you to visit www.krwa.net for training opportunities in your area!

NOTE -- This schedule shows the training sessions presently planned by KRWA. Additional sessions are regularly added throughout the year. If you are interested in any session or topic not shown on the calendar, please call KRWA at 785.336.3760. Search for training by entering a keyword in the search box.

October 18, 2017	Basic Water System Operations	Mayetta (Pr...	No Charge	Details
October 19 - 20, 2017	Cross Connection - Backflow Prevention (Recertification)	Department)	00	Details
October 24, 2017	Being Better Prepared for the Next Emergency	ence		
October 25, 2017	Being Better Prepared for the Next Emergency	Hays	No Charge	Details
October 26, 2017	Being Better Prepared for the Next Emergency	nce		
November 14 - 17, 2017	Cross Connection - Backflow Prevention (Full Certification)	Manhattan	\$225.00	
November 14 - 15, 2017	Cross Connection - Backflow Prevention (Information Only)	Manhattan		
November 16 - 17, 2017	Cross Connection - Backflow Prevention (Recertification)	Manhattan (National Guard Armory)	\$150.00	

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