

Out with the liars and the cheats

This issue of *The Kansas Lifeline* contains an article on recent problems in the sampling and monitoring under the Lead & Copper Rule by the City of Washington, D.C. Of all places for a water system to “mess up,” it happens in Congress’ own backyard. As a result, there’s likely to be enough bad press to panic politicians into action – and fodder for those who otherwise often “make hay” with any bit of news that could be used negatively against public water systems.

Water systems have long been aware that the Lead & Copper Rule is quite a departure from any other drinking water rules. There is no drinking water rule that

invades homeowners more than the Lead & Copper Rule. The rule sets up situations over which the public water system – that is, the city, RWD or privately owned utility – has no control. The

sampling does not take place in the system such as at the entry point or within the distribution system that are the typical locations where samples are taken for other rules. Unlike the bacteriological sampling, the sampling for lead and copper is required to only be taken after water sits in the homeowner’s piping system. Immediately water systems are confronted with the issue of being required to take samples on a schedule that fits the living style of the homeowners. If

the sampling containers are left with the homeowners, then the water system has to trust that the customers are really taking the samples properly. The public water utility has no idea how that sample was taken or the chain of custody of the sample. The only thing that the water system has is a signature that the sample was collected.

Before the sampling locations were even determined, the public water utility had to go through a survey to find the homes that had plumbing to match certain criteria. Those with lead piping or lead solder are referred to as “Tier 1 Sites.” Water utilities had to rely

accurate results of the overall quality of water in the system.

The problems with lead and copper sampling in Washington, D.C. have bolstered those who want to make regulations more stringent and establish more punitive measures against water systems because of monitoring or water quality issues. As a result, some revisions of the rules are being studied and we can only speculate that any revised rules will be more complex and even more intrusive.

Some systems have been accused of not collecting enough samples while others have been accused of taking more samples

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on the best information available such as surveys or building permits to try to identify what type of plumbing people had in their homes. The next problem was to gain access to take samples in these homes. Many homeowners do not want to participate or nominate their homes as sampling sites. In many cases, systems had to instead sample at lower risk sites, referred to as Tier 2 or Tier 3, because the utility could not access the higher priority sites. The result may be that the sampling really does not produce

than necessary and only submitting those with results that keep the water system in compliance.

Having worked with a variety of KDHE staff and in KRWA’s own experience with all our field staff, I know that water systems in Kansas take seriously their responsibilities to have accurate sampling and also, to maintain compliance with the drinking regulations. No doubt that there are systems – some very small and some not so small – that have management problems. Some have boards or council members that

may not always agree that compliance is essential. However, with technical assistance that is available from KDHE or through organizations like KRWA, systems have and continue to receive the help to maintain compliance with drinking water standards, which by the way is federal law, passed down to states to enforce.

The Lead and Copper Rule ranks right up there with compliance with the nitrate standard for drinking water. Excessive nitrate in drinking water can result in methemoglobinemia, a condition commonly referred to as 'blue baby syndrome' because blood lacks the ability to carry sufficient oxygen. The source of the problem is nitrate turned into nitrites in infants less than six years of age. I've never seen a report of a documented case of 'blue baby' from excess nitrate

provided through a public water system. Instead any reports of 'blue baby' have all been from private wells where both nitrate

and nitrites and other bacteriological factors could easily influence the results. Yet, the nitrate standard of 10 ppm

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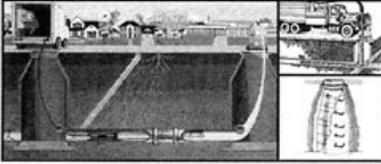
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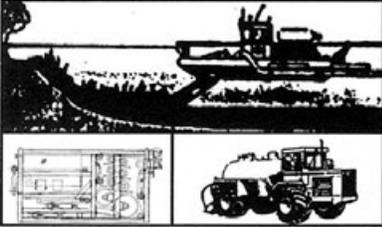
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has been adopted by EPA for all public water systems.

Water Police?

Those who lament over the problems with the sampling violations in Washington might conclude that public water systems cannot be trusted to conduct their own monitoring, so then it must be time to fund a new effort whereby the state or other contractor comes out and takes all the samples. A new State Water Police would certainly seem to be more inefficient, and certainly more intrusive to both the operation of water systems and citizens vs. local system operators being trained to take care of their own utility.

Again, it was unfortunate that the monitoring violations for drinking water regulations took place in the nation's capital. The concern is that some members of Congress might assume that "if it happened here, then it has to be worse anywhere else!" It is somewhat incredible for water

systems to be required to install permanent treatment because of a situation that could be easily handled by just not drinking the first draw from the tap. The

night's dishes that may have remained piled in the kitchen sink.

The Lead & Copper Rule and many other rules are difficult for systems to comply with. From the

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simple instruction to not drink first draw water would seem to be a reasonable approach to the lead and copper issue. Just not drinking first draw water would certainly reduce or eliminate the concern for lead/copper exposure. Not taking first draw would more accurately reflect conditions in most homes where water does not sit for six or eight hours. The fallacy is that the Rule assumes that the first use of water will be for drinking vs. washing last

site surveys to the actual monitoring, reporting and follow up by the systems, these rules are equally challenging to enforce and administer.

Kansas issues

I visited recently with Darrel Plummer, Compliance and Data Management Unit Chief at the Kansas Department of Health and Environment in Topeka concerning *The Washington Post* article. His comment is that one of the greatest challenges that KDHE faces in administering the Drinking Water Enforcement Program is addressing the high nitrate concentrations that occur naturally throughout the state. An agreement between KDHE and EPA was formulated in 1997 to address systems with frequent nitrate Maximum Contaminant Level (MCL) violations. This agreement is referred to as the Nitrate Strategy. The Nitrate Strategy is intended to provide a means for systems, through a formal Consent Agreement with KDHE, to reach compliance within a seven-year time frame, allowing systems time to collect funds and propose treatment alternatives. The Nitrate Strategy states that systems that are not in compliance within seven years will be reviewed jointly by KDHE and EPA to determine the



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necessary next steps. The table on page 15 shows the number of systems and sizes of systems with nitrate MCL violations (>10 ppm).

Darrel and other KDHE staff have explained that the definition of “safe drinking water” changes from year to year because it is based on compliance with ever increasing water quality requirements promulgated by EPA. The public needs to be aware that water systems today are testing for many more contaminants than were required even five years ago. The next phase of the Disinfectants Byproducts Rule, as one example, will be onerous for many systems to comply with. The new rules will require that compliance with the Maximum Contaminant Levels will need to be met for all sample locations. The result is that there will be more tests. The new rules will no longer allow averaging of results but instead the standards will need to be met at each sampling site. More samples mean more possibilities for non-compliance – but in reality, that non-compliance does not mean that the water systems are performing less adequately.

Drinking water quality in Kansas is generally considered to be excellent. While it sometimes may not have perfect taste because of iron or manganese, Kansas water systems are providing good water quality. Does cheating ever occur? In rare exceptions it has – but when it’s identified, it has been dealt with. Systems need to continue to be diligent in their desire to produce and maintain quality water and quality water resources. Operators, boards and councils need to continue to obtain knowledge and training necessary to accomplish that responsibility.

Kansas Community Water Systems with Nitrate MCL violations

Fiscal Year	Population Served			Total
	25-500	501-3,300	3,301-10,000	
1996	37	17	9	63
1997	46	21	9	76
1998	49	19	7	75
1999	24	13	4	41
2000	38	12	5	55
2001	32	16	3	51
2002	36	15	4	55
2003	32	22	3	57

Make “YOUR” conference THE BEST EVER!

Kansas Rural Water staff work hard to facilitate the annual conference & exhibition that benefits both members and non-member water and wastewater systems. The primary purpose of the KRWA conference is to provide information, education and technology that will benefit water and wastewater utilities and communities in Kansas. The conference is “not about KRWA” – it’s about helping people! There are many issues facing Kansas’ RWDs and communities – and KRWA is working in many ways to help address them. I particularly want to invite boards and council members and staff members to the session on Tuesday that will introduce KanCap – Kansas’ newly completed board/council training program. This project represents a significant effort of the past one and a half years. Yes, KanCap is board/council training program – but it’s also a resource library that every system should have and use. KanCap comes in a hard copy and on an interactive CD that is unlike anything you’ve ever seen before. I hope at least one person from your RWD or city attends that session. It’s just one of 56 quality presentations that will make the 2005 conference worth your time to attend. There will also be plenty of fun, food and fellowship to boot.