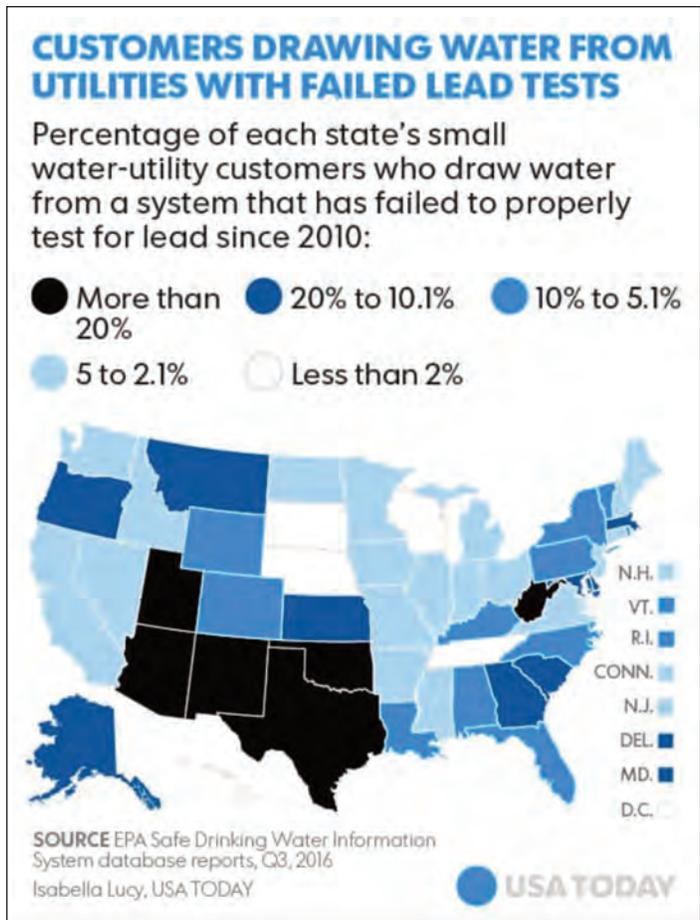


Lead in Drinking Water Makes National Headlines (Again)

On the morning of Wednesday, December 14, 2016, I awoke in a hotel room in Emporia, Kan. I grabbed a copy of the *USA Today* newspaper on my way to a KRWA training session, attended by 28 water operators preparing to take the state certification exam the following day. The front page headline read, “4 Million Americans Could Be Drinking Toxic Water: Broken system traps millions in rural areas with poisoned or untested water.” Well, that caught my attention. I read my way through the 2 ½ page article. I found myself nodding my head in agreement at times and at other times, I was cringing my teeth at the many generalized and/or false statements that I read. Mostly, I was frustrated by the incomplete picture that the article painted regarding lead in drinking water.

First of all, the title, “4 Million Americans Could Be Drinking Toxic Water,” is a massive overstatement. It is intended to capture the reader’s interest, but it also incites fear and major distrust in public water systems (PWSs). *USA Today* obtained Lead and Copper Rule compliance data from the Environmental Protection Agency’s (EPA) Safe Drinking Water Information System going back to 2010. Their analysis of the data came to the conclusion that based on the number of public water systems (PWSs) (in the U.S. that had incurred a monitoring violation of the Lead and Copper Rule (LCR), the combined population of those systems, totaled almost four million. A monitoring violation occurs when a PWS fails to have its water tested as required or fails to report test results correctly to the state primacy agency. While there are some bad actors that fail to test for lead and copper year after year, for many PWSs, a monitoring violation could be the outcome of a minor mistake. But I guess the title “4 Million Americans Could Be Drinking Water That Was Not Properly Tested for Lead or Lead Levels Were Not Reported to Primacy Agency” isn’t quite as catchy.

Using the same data, the article includes a graphic of the U.S. in which each state is shaded to identify the percentage of customers in each state that draw water from a PWSs that has incurred a LCR monitoring violation since 2010. The title of the graphic reads, “Customers Drawing Water from



Utilities with Failed Lead Tests.” The graphic above indicates that the state of Kansas falls in the 20 percent to 10.1 percent range. I’m sure the average Kansan would look at this graphic and come to the conclusion that up to 20 percent of Kansans are receiving water from PWSs that contains unsafe levels of lead – which is totally false. (graphic) According to the Kansas Department of Health and Environment’s 2015 Annual Compliance Report, out of 3,048 lead and copper samples that were collected and analyzed in 2015, 98.5 percent were below the action levels for lead and copper. In 2014, 3,821 samples were collected and analyzed and 99.4 percent were below the action levels for lead and copper.

Another statement from the *USA Today* article was that “dozens of PWSs in the U.S. that detected high lead levels took more than a year to formulate a treatment plan and even longer to begin treatment.” The USEPA’s Lead and Copper Rule allows PWSs that have exceeded the lead or copper action level, up to 18 months to complete a corrosion control treatment study to determine the type of treatment that is necessary. This allows PWSs time to begin increased lead and copper monitoring, additional water quality parameter monitoring requirements, and in the state of Kansas, time to obtain a treatment recommendation from a licensed engineer. The LCR then allows PWSs an additional

Class	Points*	Years of Experience
Small System	12.5	6 months
I	13.0	1
II	14.0	1
III	16.0	2
IV	18.0	2

24 months to install treatment. Should it take a system 3 ½ years to correct a problem like corrosive water? In most cases, no. But this is what the current LCR allows.

There were other statements in the article that bothered me, like the implication that one community’s water wasn’t “clean” because of its color and smell. But the statements that bothered me the most were: “The nation’s Safe Drinking Water Act allows less-trained, often amateur, people to operate tiny water systems...” and “You might have to get more training to run a hot dog stand than a small water system.” The latter statement was courtesy of Paul Schwartz with the Campaign for Lead Free Water. I’ll remind you that as I was reading these statements, I was sitting in a room with 28 water operators that were preparing to take the state certification exam. I wished Mr. Schwartz could be in the room to see those operators correctly answer nearly 300 practice questions on a variety of subjects including, complex federal and state regulations, mathematical calculations, operation and maintenance of pumps, well design, chemical terminology and dosages, and much more. Operator certification requirements vary by state, but in the state of Kansas, in order to obtain small systems certification, the operator must have a high school diploma or G.E.D., six months of experience, and .5 additional experience points (see table above). Small systems operators must obtain five hours of continuing education credit every two years in order to maintain certification.

Although I’ve been critical of the *USA Today* article, it wasn’t all bad. It brought attention to the complexity of the Lead and Copper Rule, the expense that PWSs incur when paying for lead and copper analysis and replacement of lead and copper pipes/fittings, and the blame-game that can be played between homeowners and PWS owners/operators. The following statement from the article sounded all too familiar to me, “Chad Roberts (Ranger, Texas, City Manager) blamed homeowners’ pipes, although he acknowledged the city’s distribution contains lead as well.” Over the past four months, I’ve given presentations on the Lead and Copper Rule at six different KRWA training sessions. At each of those sessions, at least one system operator stood up and said, “If there are lead pipes in the home, it’s not my water system’s problem. The homeowner should be forced to replace their lead pipes.” I know many operators feel this way, but this is not the intent of the Lead and Copper Rule. The intent is for PWSs to provide water

Training/Education Experience	Credit Hours*	Experience Points
1-day training**	5	0
2-day training**	10	0.25
KDHE Annual School		
- 2 days	10	0.25
- 3 days	15	0.50
High School or GED	NA	12.00
College education - each year, 30 hours	NA	1.00
Operating experience - each year; must be involved in daily operation and/or must be full-time	NA	1.00
Cal. State Univ Course, Per Volume	NA	1.00
Approved semester-long courses	54	1.50
Approved 2-year environmental tech degree	NA	6.00
Approved Training contact hours	-40	40
* Hours do not carry forward to subsequent renewal period		
** Training must be pre-approved by KDHE		

that is in a stable state, meaning water should not be corrosive enough to attack lead and/or copper plumbing materials. KDHE uses the Langlier’s Index (LI) to measure corrosivity, which is a calculation based on the relationship between pH, calcium, and alkalinity. The more negative the LI number, the more aggressive the corrosivity. KDHE interprets water as being highly aggressive if the LI is less than -2.0, moderately aggressive if the LI is between -2.0 and 0, and non-aggressive if the LI is greater than 0.

Lead in drinking water will continue to be a hot button issue and you can expect to see regulatory changes at the federal level in the next couple of years. KDHE has already made a few changes in the way they are implementing the Lead and Copper Rule. I encourage those looking for more details to read the August 2016 issue of KRWA’s Clarifier newsletter or register to attend a KRWA Lead and Copper Rule training session. Only two remain – March 7th in Chanute and April 19th in Dodge City. For those interested in reading the *USA Today* article, it can be found at the following link: <http://www.usatoday.com/story/news/2016/12/13/broken-system-means-millions-of-rural-americans-exposed-to-poisoned-or-untested-water/94071732/>

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