Aqua Talk

a safe drinking water newsletter

COLORADO
Water Quality Control Division
Department of Public Health & Environment

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It's time to get the lead out

by Margaret Pauls & Corrina Quintana, grants and loans unit

Studies show that lead exposure can lead to serious health risks such as brain, kidney and red cell production damage, especially in children, babies and pregnant women. Additional effects include negative impacts to IQ, growth, hearing, learning and behavior. The risks are high and current media attention adds pressure on communities to take action. In addition to lead service lines, common sources of lead that contact drinking water and leach into the water supply can come from piping, faucets and solder in plumbing fixtures. These items are often out of the water supplier's control.

Lead projects and the State Revolving Fund.

In May 2016, the Environmental Protection Agency released a memo clarifying that complete service line replacement is an eligible expense through the

(Continued on page 7)

2016 election follow-up

by Ron Falco, P.E., safe drinking water program manager

Lots of people have asked me about the 2016 election and its potential impact to the safe drinking water program. There are several items that have been moving forward at the federal level including the perchlorate maximum contaminant level (MCL), long-term Lead and Copper Rule revisions, the fourth Unregulated Contaminant Monitoring Rule (UCMR4), regulatory determinations for chemicals on the fourth Contaminant Candidate List (CCL4), and annual funding. A brief status of each is summarized below.

In October 2016, EPA settled a lawsuit with the Natural Resources Defense Council and agreed to issue an MCL for perchlorate in drinking water. This was originally planned to be done in 2013, but the health risk assessment for perchlorate is quite complicated. As a result of the settled lawsuit, EPA committed to a proposed rule by October 2018 and final rule by December 2019.

The EPA stated it would complete the long-term Lead and Copper Rule revisions in 2017. A Michigan congressman introduced a bill to speed up that time frame considerably, but the bill did not pass during the late 2016 lame duck session. EPA appears to have been moving in the direction generally developed by the National Drinking Water Advisory Committee and stated it would continue to involve state agencies in the process.

The sampling and result reporting for UCMR3 is still not finalized. Once that happens, EPA will begin to evaluate the results to assist with regulatory determinations. I am expecting EPA to finalize UCMR4 in early 2017 with monitoring to begin in 2018.

EPA finalized CCL4 on November 17, 2016. EPA defines the CCL as "A list of contaminants that are currently not subject to any proposed or promulgated national primary drinking water regulations, but are known or anticipated to occur in public water systems. Contaminants listed on the CCL may require future regulation under the Safe Drinking Water Act." Notably, the perfluorinated compounds PFOA and PFOS are on CCL4. EPA received pressure from some regional offices to quickly move forward and regulate those compounds.

The Safe Drinking Water Program receives 80 percent of its funding from federal sources, so EPA and federal budgets are important to us - particularly the Drinking Water State Revolving Fund (DWSRF). It appears that Congress wishes to provide robust funding to the DWSRF, but specific budget numbers are not known. However, the continuing resolution passed in late September 2016 actually cut the DWSRF by 0.5 percent.

Right now, there is no way to be sure how these items will move forward under the new administration. The bottom line is that we have to wait and see how all this plays out. We will keep you updated. I encourage you to attend or call into Water Utility Council meetings, or at least read the notes for regular updates on these and other items of interest.

Thank you!

Sample reporting requirements

The department has upcoming, important changes regarding the minimum required information for reporting drinking water samples collected within the distribution system. This includes results for: lead and copper tap samples, total coliform/E. coli samples and disinfection byproducts.

by Nicole Graziano, compliance assurance section manager

Why are these changes being made?

Sampling is one of the most important aspects of the multi-barrier approach under the Safe Drinking Water Act. The lead and copper, revised total coliform rule, and disinfection/disinfectant byproducts rules require that distribution system samples be collected at sites specifically identified in the rule-specific sampling plans developed and maintained by water systems. Remember, these rules protect the public from different contaminants that can be present in the distribution system. For samples to be valid they need to be collected at exactly the right locations to verify drinking water is safe for people to drink. We know this is complicated, but it is necessary for health protection and required by the Safe Drinking Water Act.

The department must ensure that samples are collected in accordance with the sampling plans and will work with systems to ensure that identified sampling sites are appropriate. The department must also be able to enter complete and accurate sample information into EPA's Safe Drinking Water Information System database.

The changes discussed below will help water systems understand and comply with these requirements. This will also enable the department to meet its associated requirements more effectively and efficiently – all of which will benefit public health protection. See our recommendations (at the end of this article) on how best to accomplish this.

What are the changes?

Starting February 1, 2017

1. For all samples collected within the distribution system, the physical site address (street address) must be included for each sample result submitted.
2. For all water systems subject to the Lead and Copper Rule on a standard, six-month monitoring schedule for lead and copper tap sampling as of December 31, 2016:
   - Each physical site address (street address) will have a corresponding Sample Point ID that must be included with all sample result submittals.
   - Results submitted for lead and copper tap samples must include the following information:
     - Public water system identification number (PWSID).
     - Sample point ID corresponding to specific site address.
     - Facility ID.
     - For any sample site that is sampled, but was not sampled in the prior monitoring period, an explanation of why there was a change in sites sampled.

(Continued on page 4)

Sample reporting requirements ... continued

(Continued from page 3)

If all sites sampled are already included in your lead and copper tap sampling pool on record with the department, the explanation can be provided by adding comments on the laboratory form or by submitting a separate document with the explanation.

If the change in sites sampled includes sites that are not already included in your lead and copper tap sampling pool on record, there are two ways to report the explanation:

- Submit a sample site change form, which is found on our Lead and Copper Rule webpage (all links provided at the end of this article).
- Utilize our online tool - the lead and copper sample site page in the Drinking Water Portal online to record the change/addition of sample sites.

Starting June 1, 2017

For water systems on a reduced, annual monitoring schedule for lead and copper tap sampling as of December 31, 2016:

- All the information and requirements provided above in Item 2 applies to all lead and copper tap sampling performed.

What is a Facility ID and where can I find them for my system?

Facility IDs are identification numbers assigned to a water system's sources, storage tanks, sampling stations, distribution system and treatment facilities. Facility IDs are required data elements in the department's SDWIS database. Facility IDs are found in the monitoring schedules that are available on our compliance webpage under schedules.

What is a sample site ID and where do I find them for my system?

Sample site IDs are required data elements in the department's SDWIS database. For lead and copper tap samples, the department is in the process of assigning specific state sample point IDs for each sample site (address) in the lead and copper sampling pool. These individual sample site IDs are being entered into the lead and copper rule sample pool tool in the portal.

- For water systems on a six-month standard lead and copper monitoring schedule, sample site IDs corresponding to each sample site physical address will be available on the system's monitoring schedule and in the lead and copper tool in the portal after February 2, 2017.
- For water systems on a reduced, annual lead and copper monitoring schedule, the sample site IDs will be available on the system's monitoring schedule and in the lead and copper tool in the portal after May 4, 2017.
- Sample site IDs for total trihalomethanes, total haloacetic acids, chlorite/chlorine dioxide are already available on the monitoring schedule that are available on our compliance webpage under schedules.

How can I make sure I report correctly?

The best way is to utilize the portal to submit data. If possible, use a CSV file to upload data to the portal or state sample report lab forms. CSV file is preferred over forms. Sample result forms are available on our website under Drinking Water Lab Forms. Also, watch our videos Youtube videos to learn about completing lab forms or creating CSV files.

What is needed when reporting sample results?

Information needed (individual fields) is provided on the second page of the portal (csv file) submission guide, which is found on the department's website. The information on page two of the guide is applicable for submitting data using the portal or via fax or hard-copy mail.

Sample reporting requirements ... continued

What if the data reported does not contain all the required information?

Reported results that do not include the required information cannot be processed and could result in a failure to report violation for the water system if the issue is not corrected before regulatory deadlines.

How do I manage the sites in my lead and copper sample pool?

As mentioned above, systems can manage the lead and copper sample sites through the compliance webpage. Alternatively, systems can use the forms found on our Lead and Copper Rule page to submit changes to its lead and copper sample pool to the department.

Should the laboratory or water system report the data?

This depends on the agreement between the laboratory and the public water system. Water systems should coordinate with their certified laboratory to avoid reporting duplicate information.

If the laboratory is reporting, the water system will need to provide them with all the information (especially PWSID, Facility ID, Sample Point ID, and the site address). Water systems have ultimate responsibility for reporting all required information by the regulatory deadlines.

Where are sample result forms posted?

Sample result forms are available on our forms page. A CSV file is the preferred file format.

Does the department have recommended best practices for collecting and reporting samples?

Yes, the department has recommendations.

1. Sample early in the monitoring period and report as early as possible to provide time to resolve any issues with missing data before the end of the monitoring period.
2. The monitoring schedules posted on the department's webpage are updated weekly. Check your schedule to confirm that the department has all sample results.
3. Use the portal to submit data.
4. Keep good records about your sample sites and update required sampling plans as needed.
5. Contact us with questions.

QUESTIONS?

Contact Phil Stanwood at philip.stanwood@state.co.us or 303-692-3502.

IMPORTANT WEB LINKS

Lead and Copper Rule - www.colorado.gov/cdphe/lcr

Portal login - www.wqcdcompliance.com/login

Forms page - www.colorado.gov/cdphe/dwlabforms

YouTube - www.youtube.com/user/wqcdcompliance

CSV file type instructions - www.wqcdcompliance.com/batchdisplay/_individuals/csv_instructions.pdf

Compliance monitoring and reporting: Who is responsible?

by Jackie Whelan, operator certification board liaison

It is the facility owner's responsibility to comply with permits, laws and regulations, including compliance monitoring and reporting. It is the responsibility of the operator in responsible charge (ORC) to understand the requirements of the applicable permits, laws and regulations for the facility, and to make appropriate decisions regarding the operation and maintenance of the facility.

Performing duties not reserved to the ORC

Some owners assign monitoring and reporting duties to the Operator in Responsible Charge (ORC). If the ORC takes on these responsibilities, the ORC must perform the tasks in accordance with all the requirements. The ORC is required to know, understand and do them correctly. Failure to do so presents risks to public health and the environment. "I didn't know" or "I didn't understand" are not appropriate responses when extensive, systemic or excessive violations occur. The Water and Wastewater Facility Operators Certification Board may take formal disciplinary action against one or all certificates the operator holds. Disciplinary action can include revocation of certificates.

Field samples vs. compliance samples

Field/process control samples are samples taken to assist the ORC with decisions regarding the operations of a facility and are not required monitoring or reporting for compliance determination. Examples of field samples include jar testing or use of a handheld nitrate meter.

Permits and monitoring schedules identify the minimum samples required for compliance. If additional samples are taken at compliance points within the facility/system and are analyzed by a state approved laboratory, they all must be reported to the division. This is true even if the number of samples are above the minimum samples required.

In recent years, a system took multiple nitrate samples at each entry point, in this case the compliance point, each monitoring period. The monitoring schedule only required one sample to be taken each quarter from each entry point. All samples were submitted to a state certified lab for analysis. The chain of custody form directed the lab to not report the results to the division. The ORC circled the lowest value reported by the lab for each entry point and that was the value reported to the division.

Unfortunately, many of the sample results exceeded the nitrate maximum contaminant level (MCL). There are specific follow-up actions whenever any sample result exceeds the MCL. Because many of the samples were not reported and exceeded the MCL, follow-up activities were not performed, resulting in over 2,000 violations over a five-year period.

As a result, the board revoked this operator's certificate.

Take away lessons:

1. Report all sample results taken at all compliance points.
2. Call and ask questions when you don't know or are unsure of monitoring or reporting requirements.
3. Make sure you fully understand the responsibilities you take on.

Expectations

The Water and Wastewater Facility Operators Certification Board expects a certified operator to protect the public health and the environment at all times and to uphold the integrity of the certified operator profession. Failure to do so may result in the loss of a certified operator's certificates.

It's time to get the lead out ... continued

(Continued from page 1)

Drinking Water Revolving Fund, regardless of pipe material and ownership of the line. Other eligible expense items:

- Portions of line replacement projects not under public water system control.
- Publicly-owned underground service lines from the public water main to the point at which it connects with building owner's plumbing.
- Easement purchases.

EPA advises against partial lead service line replacement to avoid corrosion damage and further lead exposure. Full lead line replacements are critical to ensure lead is not dislodged during construction and connection fittings between old and new pipes aren't a lead source. Non-routine testing and mapping of lead lines for replacement may be an eligible expense in certain circumstances. Ultimate project eligibility is evaluated by the Water Quality Control Division during the engineering review. These changes are great news and will enable communities to work with State Revolving Fund programs and building owners to fully replace lead lines.

What are other states doing?

EPA recently shared two examples of how states are utilizing the State Revolving Fund for lead and copper projects.

Massachusetts dedicated funding towards lead and copper testing in public schools to address older pipes, fixtures and complete outreach. The project is a collaboration with the state health department which administers testing and provides technical assistance for any public school in the state.

Wisconsin provided subsidized 20-year loans to municipalities for water infrastructure projects replacing lead service lines. The program required municipalities to be a disadvantaged community as determined by state criteria and excluded partial line replacements. The awarded municipalities administered the lead line replacement program with homeowners, licensed day care centers and schools.

What are benefits of the State Revolving Fund loan program?

One of the notable benefits the State Revolving Fund program offers is subsidized, below market interest rates. With leveraged loan rates at 70 percent of market rate and the current two percent direct loan rate, communities save substantial money over the life of their loan. The loan is written through the Colorado Water Resources and Power Development Authority which is a state agency rather than a for-profit lender. Loan proceeds fuel the revolving fund capacity to enable future subsidized financing. Communities qualifying as disadvantaged communities may also be eligible for zero to one percent rates as well as planning and design grants. Loan terms are typically 20 years with repayments due twice a month.

Potential borrowers may pursue the creation of limited improvement or special districts to aid in loan eligibility and debt service. Some of these costs may also be eligible for reimbursement through the State Revolving Fund loan program. Counties or other governmental agencies may act as sponsors of improvement districts to further assist projects in obtaining funding and getting improvements built.

With your help, we can get the lead out of our drinking water. Start your action plan today. For questions and more information, call the grants and loans team (www.colorado.gov/cdphe/wq-grants-and-loans-contacts)at 303-692-3653.

Update to Colorado Design Criteria for potable water systems

by Doug Camrud, engineering

The current Colorado Design Criteria for Potable Water Systems went into effect on September 1, 2013. The design criteria, along with the Colorado Primary Drinking Water Regulations (Regulation 11), are used by the Colorado Department of Public Health and Environment for reviewing waterworks at public drinking water systems. Prior to preparing the 2013 design criteria, the previous version was last updated in March 1997. The 2013 design criteria was developed as a collaborative effort between the department and stakeholder community (water systems, design engineers, state and county personnel).

In an effort to keep design criteria current with regard to new technologies, and also to address ongoing or emerging issues such as lead and copper/corrosion control compliance and corrosion control studies, an update is tentatively scheduled for summer 2017. Minor modifications and clarifications that have come up or addressed during design reviews in the past three and a half years may be included as part of the update process. This update will be performed through a formal stakeholder process. Due to the limited scope of this update, the stakeholder process is expected to be more streamlined than the 2012-2013 effort. A major technical review of the design criteria is not planned at this time because of personnel and time constraints. However, a major technical review is expected to occur within the next few years. Additional announcements concerning the upcoming update of the design criteria will be made via the department's website and the quarterly Aqua Talk publication.

In the future, minor modifications to keep the design criteria current may be made by the department as necessary. Notification of minor revisions will be made by the department via the quarterly AquaTalk publication, email notifications, water utility council announcements, etc.

On a side note, the current Colorado Design Criteria for Domestic Wastewater Treatment Works, in effect since September 15, 2012, is tentatively scheduled to be updated in the summer of 2017 to incorporate new technologies and other revisions/clarifications.

EPA water utilities and emergency services

by Kaitlyn Minich, local assistance unit

Extreme weather events and other disasters can quickly overwhelm local resources. For example, earthquakes can cause widespread damage that tests the limits of both equipment and personnel. Accompanying power outages can also threaten the provision of lifeline services such as safe drinking water. What can be done to better mitigate the impacts of these disasters?

To help answer this question, the EPA, Colorado Department of Public Health and Environment, Colorado Department of Public Safety, Homeland Security and Emergency Management, and several local water agencies sponsored a one-day workshop designed to bring together water utility and emergency services personnel to discuss their concerns and priorities during a regional disaster.

The workshop included presentations from water utilities and emergency management agencies involved in emergencies throughout the state, discussions on the importance of accurate documentation in the reimbursement process, and a facilitated emergency scenario of a large regional disaster that affected the ability to supply safe drinking water. Many lessons, useful tools, and suggestions for future trainings were shared at the workshop. The following are summaries of some of those presentations.

The Town of Iliff

The Town of Iliff's 2015 emergency occurred when the town's main line broke under a river and left the town without water for 23 days. When the break occurred, the town called an engineering firm they had previously worked with, and activated the Colorado Water/Wastewater Agency Response Network (CoWarn). During the workshop, the town stressed the importance of communicating with neighbors; the Town of Iliff immediately alerted the fire departments of nearby towns to make sure they were aware that the town may need help.

The City of Alamosa

The City of Alamosa also activated CoWARN during their emergency in 2008. Responders provided a mobile command center and distributed three different notices, by hand, to all 10,000 residents to keep them informed about the status of their drinking water. Since the emergency, the city built and maintains a website and began using a local TV channel to facilitate communication.

Upper Thompson Sanitation District

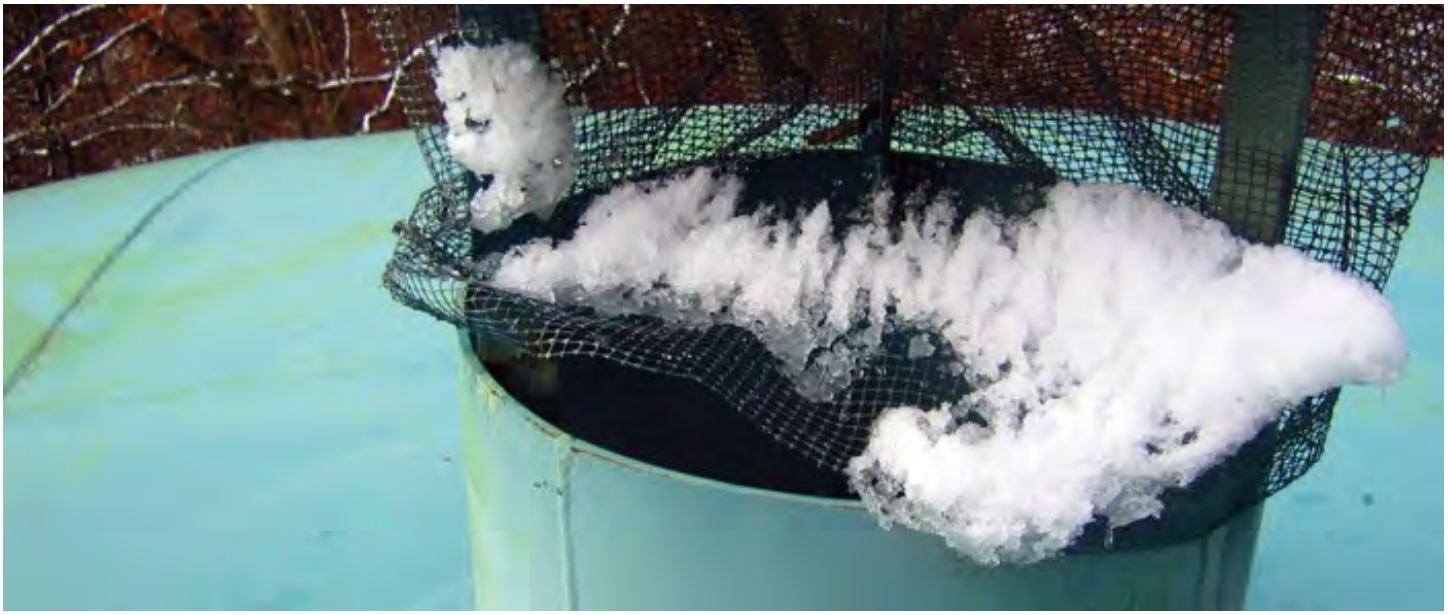
Upper Thompson Sanitation District experience during the 2013 floods revealed a lot of lessons learned. During the workshop, the system discussed the benefits of completing a hydraulic model on their distribution system before an emergency. This model proved to be incredibly helpful during repairs and recovery. They also emphasized the importance of communicating early with emergency services personnel. During the floods, the only way into the town was through Rocky Mountain National Park and there were restrictions on commercial vehicles using park roads. The system also highlighted the importance of having a communication plan beyond cell phones as emergencies often impact phone lines.

MORE INFORMATION

CoWARN
www.cowarn.org

American Water Works Association Rocky Mountain section
(Joint committee - Security and Emergency)
rmsawwa.org

Winterizing storage tanks



by Andy Poirot, P.E., field services

With winter approaching full-bore, there are several items that suppliers should consider when performing their last scheduled storage tank maintenance for the year. New storage tank inspection regulations require routine inspections, but some conditions can make these inspections difficult. Before a blanket of snow makes it hard to find tank infrastructure, be sure to take the time to check on your storage tanks.

Locate your overflow pipe(s) and record their condition. It's hard to believe, but wild creatures will climb a long way up a pipe to find water. Be sure your overflow pipe has a fine screen, flapper valve or duckbill valve that can provide a tight seal. Mark your overflow with a snow stake or rod so that you can find it easily when you need to. Evaluate if a tank overflow or spring runoff will cause significant erosion and mitigate it appropriately. Tank isolation valves should also be marked so they are easily located in the event a tank must be taken down during the winter months.

Check all hatches for proper gaskets and seals. Showbox hatches, by design and if properly maintained, help keep contamination that is mobilized by snow melt and rain out of the tank. If you open the hatch and find cobwebs, rodent feces, or other debris, it is not adequately sealed. Vents should be checked to ensure that fine screens are in place and intact to

(Continued from page 10)

prevent entry of insects, small animals or birds. A helpful hint for preventing screen failure is placing a backing plate of a stiffer material like expanded metal in the screen. Vents must also be turned downward to prevent animal feces, windblown contaminants and precipitation from entering the tank. Vents should be kept clear of snow and debris to ensure adequate air flow into and out of the tank as levels and temperature change.

For many tank locations, cold temperatures, water stratification and less usage can result in an ice layer forming on the water surface inside the tank. This can impact level control and can damage internal tank coatings over time. Consider a mixing device of some kind to keep ice formation to a minimum. This could also help with water age for disinfection byproduct control in storage tanks.

While many suppliers may opt for an alternative inspection strategy that reduces winter inspections, particularly in areas of the state with deep snow and/or remote locations, it is still wise to inspect your tanks as late as possible in fall and as early as possible in spring to ensure that tanks were not compromised during the winter months.

Winter can be a challenging time to maintain compliance, but diligence and a smart inspection strategy can keep you in compliance and keep drinking water safe for your clients.

Long Term 2 Schedule 4 is coming

by Bryan Pilson, compliance assurance

Beginning October 2017, many surface water and GWUDI suppliers that serve less than 10,000 people will begin the second round of source water monitoring under the Long Term 2 Interim Enhanced Surface Water Treatment Rule (LT2 Rule). For this group of suppliers, the first round of monitoring was completed in 2008-2009.

The purpose of the LT2 rule is to assess whether water sources contain high levels of cryptosporidium, a pathogenic parasite. If high levels are found, additional measures or treatment are required to limit its presence in finished water. Suppliers required to comply must monitor for E. coli every two weeks for one year. Unlike a distribution total coliform sample, these samples must be reported as most probable number or colony-forming units. E. coli concentrations are used as an analog for cryptosporidium. Suppliers with high levels of E. coli in their source water averaged over the year, may be required to monitor for cryptosporidium.

In the coming months the department will be sending affected suppliers additional LT2 Rule communications including a pre-populated LT2 Rule sample plan that must be submitted by July 1, 2017.

Tips on effective materials survey

by Kaitlyn Minich, Local assistance unit

The Lead and Copper Rule requires that systems complete an evaluation to identify what materials are used in the distribution system. This helps identify the appropriate high-risk locations to take lead and copper samples. Many suppliers completed their original materials evaluation in the early 1990s, but these evaluations need to be updated and maintained to ensure sample sites are still appropriate, based on routine distribution system operation and maintenance activities. Here are some tips to help you complete your materials evaluation and identify lead, copper, and galvanized steel in the distribution system.

Meter installation and maintenance records, plumbing permits, and county assessor records should help identify when a home is built. Websites that show estimated home values or recent home sales may also contain information on the year a home was built. While the date a home is built is a good indicator of the expected materials, home renovations over the years may result in a home not containing galvanized steel, copper or lead pipes or lead solder. Homes built or renovated after January 1, 1988 shouldn't contain lead pipes or lead solder due to the prohibition of its use.

Interviews with plumbers or retired water personnel can also help identify the ages and the plumbing materials of distribution system. When in doubt, physical inspections can be the most useful way to determine the material used in a location.

- Copper pipe will have a color like a penny.
- A strong magnet will help identify if a pipe is made of galvanized steel.
- A scratch test is a useful way to determine the material of a pipe or lead solder: Use a screwdriver or key to scratch off any surface material and see the color of the pipe or solder underneath. If the scratched area remains a dull grey, the pipe is likely galvanized steel (make sure to check with a magnet, just in case). If the scratched area is shiny and silver, the pipe or solder contains lead. If the scratched solder remains gray or whitish, it likely does not contain lead.
- Please note, while the water heater may be the most accessible location to inspect pipes or solder, the piping and solder at the water heater is likely to have been replaced during installation of new water heaters over time and may falsely indicate a home doesn't contain lead solder.

Some systems use Lead Check swabs to determine if a pipe contains lead/ has lead solder. These swabs are sold at most hardware stores and can be useful to definitively determine if a fixture contains lead. More guidance is available on our website: www.colorado.gov/cdphe/lcr.

Ask Aqua Man

Dear Aqua Man,

I've been told there is good information regarding drinking water on your webpage.

What should I look for and what's the best way to find it?

Sincerely,

Whereta Click

Dear Ms. Click,

The best way to find information is to do a search. Since web pages are updated frequently, searching for keywords works best to find the information you seek.

Use Google to search for "Colorado WQCD". Then click on the link for the Water Quality Control Division webpage. Go to www.colorado.gov/cdphe/wqcd

From this location use the search box (top right corner) to search for what you need. For example type "drinking water lead" in the search box and make sure to press enter to start the search. Now you have found a link to information regarding lead in drinking water.

Below are some things you can search for and the useful keywords to find them.

Type in search box	The link you're looking for	What's there
Drinking water lead	Lead in drinking water www.colorado.gov/cdphe/lead-drinking-water	• Basic information on lead in drinking water. • EPA guidance.
Drinking water forms	Drinking water compliance guidance and forms www.colorado.gov/cdphe/wq-drinking-water-compliance-forms	• Certified laboratory reporting for sample results. • Inventory/system updates . • Monitoring plan templates.
Drinking water training	Drinking water: Training opportunities www.colorado.gov/cdphe/drinking-water-training-opportunities	• Coaching assistance request form. • Contact information.
Drinking water compliance	Drinking water compliance assurance www.colorado.gov/cdphe/wqcdcompliance	• Water system portal. • Monitoring schedules. • Online drinking water calculators.

Your turn: Ask Aqua Man

Have some time saving helpful hints or tips to share with fellow operators? Can Aqua Man answer your question? Is there a topic you would like discussed?

- email: cdphe.wqdwtraining@state.co.us
- phone: 303-692-3619
- fax: 303-782-0390
- mail: WQCD, 4300 Cherry Creek Drive South, Denver, CO 80247

Test your knowledge

Think you know everything about drinking water? Prove your drinking water knowledge with our interactive quiz.

Please go to the online quiz at online to record your answers. Answers will appear in the next issue.

Enjoy!

1. How far should the vent opening be above the annual average snow depth?
   a. 36 inches.
   b. 24 inches.
   c. 12 inches.
   d. 18 inches.
2. True or False: Suppliers must report E. coli samples as most probable number or colony-forming units.
   a. True.
   b. False.
3. What's one thing water utilities can do to help prepare for an emergency?
   a. Develop an emergency response plan.
   b. Coordinate with local fire, police and emergency services providers.
   c. Join the Colorado Water/ Wastewater Agency Response network.
   d. All of the above.
4. True or False: The EPA clarified that the State Revolving Fund may provide funds for complete service line replacement of lead and non--lead pipes.
   a. True.
   b. False.
5. True or False: All compliance samples must be taken by a certified operator.
   a. True.
   b. False.
6. True or False: If your monitoring schedule only requires one sample to be taken during the monitoring period, you only report one sample even if you took multiple samples during the monitoring period.
   a. True.
   b. False.

Answers to the fall 2016 drinking water quiz

1. A charrette is a collaborative work session. (a. True)
   a. True.
   b. False.
2. Involving more stakeholders early in the design making process can help project teams when seeking integrated and holistic solutions (a. True)
   a. True.
   b. False.
3. Mill Creek was able to solve their treatment challenges while also providing for _____. (b. Recent lead and copper requirements)
   a. Future growth.
   b. Recent lead and copper requirements.
   c. Road improvements.
4. Certified laboratories can invalidate lead or copper tap samples. (b. False)
   a. True. Since they are certified they can invalidate lead or copper tap samples.
   b. False. Only the department has the authority to invalidate lead and copper tap samples.
5. What are some additional ways to prevent trespassers from directly contaminating a finished water storage tank that only has a candy cane vent and clamped screen covering? (e. All of the above)
   a. Remove the candy cane vent and upgrade the access hatch to one with built in vents.
   b. Replacing the candy cane vent with a more secure mushroom-type cap vent.
   c. Add surveillance system.
   d. Add a thicker screen or larger mesh cover with lock to the candy cane vent.
   e. All of the above.

Visit us on the web

Links and resources from other issues of Aquatalk
www.colorado.gov/cdphe/aqua-talk-resources

Follow safe drinking water program on Twitter!
twitter.com/WQCD_Colorado

The Water Quality Control Division's home page web address is
www.colorado.gov/cdphe/wqcd

For training opportunities, please visit the division's website at
www.colorado.gov/cdphe/dwtraining

To access Aqua Talk online, go to

www.colorado.gov/cdphe/aquatalk

To access inspection services go to:

www.colorado.gov/cdphe/wqinspectionservices

To access the contact list for drinking water regulations go to:

www.colorado.gov/cdphe/wqcd

Aqua Talk

Newsletter Information

Editorial team: Doug Camrud, Ron Falco, Nicole Graziano, Arrmando Herald, Kelly Jacques, Kaitlyn Minich, Margaret Pauls, Meghan Trubee, Jackie Whelan and Heather Wilcox.

We welcome comments, questions, story ideas, articles and photographs submitted for publication. Please address correspondence to Armando Herald, Aqua Talk Newsletter, Water Quality Control Division, 4300 Cherry Creek Dr. S., B2, Denver, CO 80246,1530 or email cdphe.wqdwtraining@state.co.us. Enter "Safe Drinking Water Newsletter" as the subject. Past issues are available by contacting the editor or visiting the website at: www.colorado.gov/cdphe/aquatalk.com

UNSUBSCRIBE: if you would like to stop receiving this newsletter, please contact us at 303-692-3619.

COLORADO
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Department of Public Health & Environment

Safe Drinking Water Program
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Aqua Talk

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