Radionuclide Public Education Materials – 2023

May Valley Water Association – PWSID: CO0150800

Contact the Association at (719) 829-4571 for more information about this notice.

What are the health effects?

Radionuclides encompass several different constituents that are found in drinking water and are known to cause health risks when consumed. Regulated radionuclide constituents include gross alpha, combined radium, and uranium. This section presents the health effects associated with these constituents.

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Alpha radiation is measured in drinking water as gross alpha using the units of picoCuries per liter (pCi/L). Some people who drink water containing gross alpha at a level higher than the maximum contaminant level (MCL) of 15 pCi/L over many years may have an increased risk of cancer. Our water system has gross alpha in the drinking water at levels higher than the MCL. If you have specific health concerns, consult your doctor.

Radium is a naturally-occurring mineral in the rock under some parts of Colorado. Radium is measured as radium-226 and radium-228 and is reported in drinking water as combined radium (the measured level of radium-226 plus the measured level of radium-228) using the units of picoCuries per liter (pCi/L). Some people who drink water containing combined radium at a level higher than the maximum contaminant level (MCL) of 5 pCi/L over many years may have an increased risk of cancer. Our water system has combined radium in the drinking water at levels higher than the MCL. If you have specific health concerns, consult your doctor.

Uranium is a naturally-occurring mineral in the rock under some parts of Colorado. Uranium is measured in drinking water using the units of micrograms per liter (ug/L). Some people who drink water containing uranium at a level higher than the maximum contaminant level (MCL) of 30 ug/L over many years may have an increased risk of cancer and/or kidney toxicity. Our water system has uranium in the drinking water at levels lower than the MCL. If you have specific health concerns, consult your doctor.

Gross alpha, combined radium, and uranium are all classified as radionuclides. Radionuclides in drinking water are not known to cause health risks for other types of water use other than drinking (e.g. bathing, showering, washing dishes). Boiling your water will not remove the radionuclides.

What can I do?

Due to higher levels of radionuclides present in our current water supply and the long planning and construction schedule for the Arkansas Valley Conduit (AVC) that will bring our community a new source of drinking water, you may want to consider using an alternative drinking water supply (e.g., bottled or another source with levels of radionuclides known to be below the MCL). Or, you may wish to purchase, install, and maintain a point-of-use (sink or faucet mounted) treatment unit or a point-of-entry (whole house) treatment unit for the removal of radionuclides.

Point-of-use treatment units

Point-of-use units using reverse osmosis have been identified by Environmental Protection Agency (EPA) as a Small System Compliance Technology (SSCT) for combined radium, uranium, and gross alpha. Point-of-use reverse osmosis units need to be NSF/ANSI 58 certified (Price range $250 - $1,000, not including installation, subject to change). Point-of-use units may be cheaper than point-of-entry units, but they may treat smaller volumes of water before requiring maintenance. Units are available online or through mail order by searching for NSF/ANSI 58 reverse osmosis units that specifically are designed to remove radionuclides.

Point-of-entry treatment units

Point-of-entry anion and cation exchange softeners have been identified by the EPA as a "best available technology" (BAT) and Small System Compliance Technology (SSCT) for radium, uranium, gross alpha. The unit must be NSF/ANSI 44 certified. (Price range $1,200 - $2,250, not including installation, subject to change) Units are available online or through mail order by searching for NSF/ANSI 44 water softener units that specifically are designed to remove radionuclides.

Locally, there are two companies that sell, install and maintain both point-of-use devices and water softeners together with providing a rental program for these devices. DeLoach's is located at 103 S. 2nd Street, Lamar, CO, (719) 336-5201 and Clear Choice Water, 1251 County Road LL, Wiley, CO, (719) 336-5258. You can contact either of these companies for information regarding their products.

If you decide to rent or buy these devices, be sure that they meet the NSF/ANSI certifications.

As the regulated drinking water Supplier, we have no obligation to buy, install, or maintain a customer's radionuclide removal treatment unit. If we decide as a regulated water system that point-of-use or point-of-entry will be used for all customers as the selected alternative for the drinking water system to comply with the radionuclide MCL, we will notify and involve you in that decision process. We do not plan to select a system-wide treatment alternative, as long as the AVC is a viable option. We are continuing to work with the Colorado Department of Public Health and Environment to provide you up-to-date information about your drinking water.

Lastly, there are filtered water fill stations where you can fill one, two, three and/or five-gallon jugs. The cost is $0.25 per gallon or five gallons for $1.00. These fill stations are located:

May Valley Water 214 Main Street Wiley, CO 81092	DeLoach's Culligan 103 S. 2nd Street Lamar, CO 81052	Sweet Water 409 E. Olive Street Lamar, CO 81052

For more information:

https://cfpub.epa.gov/safewater/radionuclides/radionuclides.cfm?action=Rad_Point%20of%20Use

https://cfpub.epa.gov/safewater/radionuclides/radionuclides.cfm?action=Rad_Ion%20Exchange

http://www.nsf.org/consumer-resources/water-quality/water-filters-testing-treatment/standards-water-treatment-systems