Board adopts new drinking water regulatory standard to improve protections from hexavalent chromium

Compliance schedule allows more time for small systems to invest in new treatment options

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SACRAMENTO – The State Water Resources Control Board added a new standard of public health protection to California’s drinking water today by voting to adopt a maximum contaminant level (MCL) of 10 parts per billion (ppb) for hexavalent chromium, a cancer-causing contaminant. The new MCL will reduce affected Californians’ potential exposure to hexavalent chromium to one-fifth of the current regulatory level.

Commonly called chromium-6, hexavalent chromium is an odorless and tasteless heavy metal that may be found in groundwater naturally or as a result of improper disposal methods for contaminated waste at industrial sites. Studies have linked long-term exposure to a risk of cancer when ingested.

California has not had a MCL for hexavalent chromium as a single constituent since 2017, when a prior MCL was invalidated after a court ruled the state did not adequately document if it was economically feasible for water systems to implement. Since that time the MCL in place has been for total chromium, which is all chromium compounds present in water, including hexavalent and the significantly less toxic trivalent chromium.

The level for total chromium is set at 50 ppb in California. Under this combined standard, the level of hexavalent chromium in drinking water could reach the full amount allowable and still meet regulatory requirements, if it is the only variant of chromium present. At an MCL of 10 ppb, it is estimated that a person who drinks two liters of water daily for 70 years could have a 1-in-2,000 chance of developing cancer. The new MCL will reduce affected Californians’ potential exposure to hexavalent chromium to one-fifth of the current regulatory level.

“Setting a new MCL for chromium-6 has been a top public health priority for the board for years, and the standard adopted today improves health protections for communities with impacted drinking water supplies,” said E. Joaquin Esquivel, chair of the State Water Board. “Affordability continues to be front of mind for us as we adopt this MCL,
and we will continue to work with water systems in these communities to achieve the Human Right to Water.”

After the court’s action, the board started over, developing an entirely new MCL through updated data and a rigorous economic feasibility analysis that considered the range of impacts on water systems.

This analysis indicated that the costs of adding treatment could severely strain small systems, prompting board staff to propose a longer implementation schedule for the MCL that allows these systems to benefit from research and development led by larger systems that must meet the standard first. The implementation period in the MCL adopted by the board ranges from two years for systems with over 10,000 service connections to four years for systems with under 1,000 connections.

The board works closely with many small water systems through its Safe and Affordable Funding for Equity and Resilience (SAFER) drinking water program, providing funding and technical assistance to help them serve safe and affordable drinking water. Projects that will help systems comply with primary MCLs, or standards based on health impacts such as the MCL for hexavalent chromium, are eligible for financial and technical support.

The new MCL must be finalized by the Office of Administrative Law before going into effect, which is expected by Oct. 1.

The board’s website contains more information about hexavalent chromium and the board’s rulemaking process.

The State Water Board’s mission is to preserve, enhance and restore the quality of California’s water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper resource allocation and efficient use for the benefit of present and future generations.