

Summary of the 2016 Updates to the Maximum Exposure Guidelines

Published January 10, 2017

The Maine Center for Disease Control and Prevention (Maine CDC) updated its Maximum Exposure Guidelines (MEGs) for Manganese and Uranium in 2016. The Maine CDC also adopted the U.S. Environmental Protection Agency (US EPA) 2016 drinking water health advisory for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) as MEGs for these compounds. These updates are based in part on an ongoing effort to align the State's health guidelines for drinking water with federal standards and health advisories.

MEGs are recommendations for concentrations of chemicals in drinking water below which there are minimal risks of adverse health effects from a lifetime of ingestion. MEGs are intended as guidance levels only; they are not regulatory standards.

Manganese MEG Update

The US EPA lifetime health advisory (<u>US EPA Drinking Water Health Advisory for Manganese, January 2004</u>) of 300 μ g/L for manganese in drinking water replaces the previous manganese MEG of 500 μ g/L. The lifetime health advisory is derived from an adequate dietary intake level for adults and includes a modifying factor to account for increased manganese absorption from water in fasted individuals, and uncertainty in exposure estimates and absorption in infants. While the previous MEG was derived from the same adequate dietary intake level, the derivation did not include this additional modifying factor.

Uranium MEG Update

The Federal Maximum Contaminant Level (MCL) (National Primary Drinking Water Regulations; Radionuclides; Final Rule) of 30 μ g/L for uranium in drinking water replaces the former 20 μ g/L MEG for uranium. The use of the 30 μ g/L MCL as the MEG helps to avoid confusion for private well owners trying to interpret the difference between a state guideline of 20 μ g/L and the federal MCL of 30 μ g/L. Overall, the difference in health protectiveness between a level of 20 μ g/L and 30 μ g/L of uranium in drinking water is negligible. Both levels are considered protective against potential uranium toxicities.

PFOA and PFOS MEG update

The Maine CDC adopted the recently published US EPA lifetime health advisory for PFOA and PFOS (<u>Drinking</u> <u>Water Health Advisories for PFOA and PFOS</u>) of 0.07 μ g/L or 70 ng/L as MEGs. Previously, the Maine CDC developed a MEG for PFOA of 0.1 μ g/L or 100 ng/L, but had not developed a MEG specific for PFOS. The lifetime health advisory includes a value for each chemical individually, and when both PFOA and PFOS are present, the summed concentration should not exceed the 0.07 μ g/L or 70 ng/L advisory level.