

567—41.8(455B) Radionuclides.

41.8(1) *Radium-226, radium-228, and gross alpha particle radioactivity in community water systems.* The following are the maximum contaminant levels for radium-226, radium-228, and gross alpha particle radioactivity:

MCL

- a. Combined radium-226 and radium-228 5 pCi/l
- b. Gross alpha particle activity (including radium-226 but excluding radon and uranium) 15 pCi/l

41.8(2) Beta particle and photon radioactivity from man-made radionuclides in community water systems.

a. *Maximum contaminant level.* The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirem/year.

b. *MCL calculation.* Except for the radionuclides listed in the table below, the concentration of man-made radionuclides causing 4 mrem total body or organ dose equivalents shall be calculated on the basis of a 2 liter per day drinking water intake using the 168-hour data listed in “Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure,” NBS Handbook 69 as amended August 1963, U.S. Department of Commerce. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 millirem/year.

AVERAGE ANNUAL CONCENTRATIONS ASSUMED TO PRODUCE
A TOTAL BODY OR ORGAN DOSE OF 4 MREM/YR

Radionuclide	Critical Organ	pCi per liter
Strontium-90	Bone marrow	8
Tritium	Total body	20,000