

62-550.310 Primary Drinking Water Standards: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels.

(These standards may also apply as ground water quality standards as referenced in Chapter 62-520, F.A.C.)

(1) Inorganics – Except for nitrate and nitrite, which apply to all public water systems, this subsection applies to community water systems and non-transient non-community water systems only.

(a) The maximum contaminant levels for the inorganic contaminants are listed in Table 1, which is incorporated herein and appears at the end of this chapter.

(b) The maximum contaminant level for nitrate (as N) applicable to transient non-community water systems is 10 milligrams per liter. The Department or Approved County Health Department shall allow a contaminant level for nitrate (as N) of up to 20 milligrams per liter upon a showing by the supplier of water that the following conditions are met:

1. The water distributed by the water system is not available to children under 6 months of age or to lactating mothers, and
2. There is continuous public notification of what the nitrate level (as N) is and what the potential health effects of such exposure are.
3. The Department shall require monitoring every 3 months as long as the maximum contaminant level is exceeded. Should adverse health effects occur, the Department shall require immediate compliance with the maximum contaminant level for nitrate (as N).

(c) The revised maximum contaminant level of 0.010 mg/L for arsenic becomes effective January 1, 2005. All community and non-transient non-community water systems shall demonstrate compliance with the revised maximum contaminant level by December 31, 2007.

(2) Disinfectant Residuals.

(a) Maximum residual disinfectant levels (MRDLs) are as follows:

DISINFECTANT RESIDUAL	MRDL
Chlorine	4.0 mg/L (as Cl ₂)
Chloramines	4.0 mg/L (as Cl ₂).
Chlorine Dioxide	0.8 mg/L (as ClO ₂).

(40 C.F.R. § 141.65(a) (July 1, 2011))

(b) Compliance dates – community water systems and non-transient non-community water systems. (40 C.F.R. §141.65(b) (July 1, 2011))

1. Subpart H systems serving 10,000 or more persons must comply with paragraph (a) above beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with paragraph (a) above beginning January 1, 2004. (40 C.F.R. §141.65(b)(1) (July 1, 2011))

2. If you are a consecutive system that does not add a disinfectant but delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light, you must comply with analytical and monitoring requirements for chlorine and chloramines in 40 C.F.R. §141.131(c) and §141.132(c)(1) (which are incorporated by reference in subsection 62-550.550(1), F.A.C., and Rule 62-550.821, F.A.C.) and the compliance requirements in 40 C.F.R. §141.133(c)(1) (which is incorporated by reference in Rule 62-550.821, F.A.C.) beginning April 1, 2009, and report monitoring results under 40 C.F.R. §141.134(c) (which is incorporated by reference in Rule 62-550.821, F.A.C.). (40 C.F.R. §141.624 (July 1, 2011))

(c) Compliance dates – transient non-community water systems. Subpart H systems serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and using chlorine dioxide as a disinfectant or oxidant and systems using only ground water not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004. (40 C.F.R. §141.65(b)(2) (July 1, 2011))

(3) Disinfection Byproducts.

(a) Bromate and chlorite. (40 C.F.R. §141.64(a) (July 1, 2011))

1. The maximum contaminant levels (MCLs) for bromate and chlorite are as follows:

DISINFECTION BYPRODUCT	MCL
Bromate	0.010 mg/L

Chlorite	1.0 mg/L
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(40 C.F.R. §141.64(a) (July 1, 2011))

2. Compliance dates for community water systems and non-transient non-community water systems. Subpart H systems serving 10,000 or more persons must comply with subparagraph 1. above beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with subparagraph 1. above beginning January 1, 2004. (40 C.F.R. §141.64(a)(1) (July 1, 2011))

(b) Total trihalomethanes (TTHM) and haloacetic acids (five) (HAA5). (40 C.F.R. §141.64(b) (July 1, 2011))

1. Subpart L (Stage 1) – running annual average compliance. (40 C.F.R. §141.64(b)(1) (July 1, 2011))

a. Compliance dates for community water systems and non-transient non-community water systems. Subpart H systems serving 10,000 or more persons must comply with this sub-subparagraph beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this sub-subparagraph beginning January 1, 2004. All systems must comply with these maximum contaminant levels (MCLs) as a running annual average until the date specified for 40 C.F.R. Part 141, Subpart V (Stage 2), compliance in 40 C.F.R. §141.620(c) (which is incorporated by reference in Rule 62-550.822, F.A.C.).

DISINFECTION BYPRODUCT	MCL
TTHM	0.080 mg/L
HAA5	0.060 mg/L

(40 C.F.R. §141.64(b)(1)(i) (July 1, 2011))

b. The regulations in 40 C.F.R. Part 141, Subpart L (as incorporated in Rule 62-550.821, F.A.C.) establish criteria under which community water systems and non-transient non-community water systems that add a chemical disinfectant to the water in any part of the drinking water treatment process must modify their practices to meet MCLs in 40 C.F.R. §141.64 (which is incorporated in subsection 62-550.310(3), F.A.C.). (40 C.F.R. §141.130(a)(1) (July 1, 2011))

2. Subpart V (Stage 2) – locational running annual average (LRAA) compliance. (40 C.F.R. §141.64(b)(2) (July 1, 2011))

a. Compliance dates for community water systems and non-community water systems. The subpart V maximum contaminant levels (MCLs) for TTHM and HAA5 must be complied with as an LRAA at each monitoring location beginning the date specified for 40 C.F.R. part 141, subpart V, compliance in 40 C.F.R. §141.620(c) (which is incorporated by reference in Rule 62-550.822, F.A.C.).

DISINFECTION BYPRODUCT	MCL
TTHM	0.080 mg/L
HAA5	0.060 mg/L

(40 C.F.R. §141.64(b)(2)(i) (July 1, 2011))

b. The regulations in 40 C.F.R. Part 141, Subpart V (which is incorporated by reference in Rule 62-550.822, F.A.C.), establish monitoring and other requirements for achieving compliance with maximum contaminant levels based on LRAAs for TTHM and HAA5. You are subject to these requirements if your system is a community water system or a non-transient non-community water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light. (40 C.F.R. §141.620(a) and (b) (July 1, 2011)).

(4) Organics – This subsection applies only to community water systems and non-transient non-community water systems.

(a) The maximum contaminant levels for the volatile organic contaminants (VOCs) are listed in Table 4, which is incorporated herein and appears at the end of this chapter. The regulatory detection limit (RDL) for all VOCs is 0.0005 mg/L.

(b) The maximum contaminant levels and the regulatory detection limits (RDLs) for the synthetic organic contaminants (SOCs) are listed in Table 5, which is incorporated herein and appears at the end of this chapter.

(5) Microbiological – This subsection applies to all public water systems. Until March 31, 2016, monitoring requirements to demonstrate compliance with this subsection are defined in Rule 62-550.518, F.A.C. Beginning April 1, 2016, monitoring requirements to demonstrate compliance with this subsection are defined in Rule 62-550.830, F.A.C. This subsection shall be effective on July 7, 2015.

(a) Until March 31, 2016, the total coliform MCL is based on the presence or absence of total coliforms in a sample, rather than

coliform density. (40 C.F.R. §141.63(b) revised as of July 1, 2014.) For the purpose of the public notice requirements in Rule 62-560.410, F.A.C., a violation of the standards in this paragraph poses a non-acute risk to health. This paragraph shall be effective on July 7, 2015.

1. For a system which collects at least 40 samples per month, if no more than 5.0 percent of the samples collected during a month are total coliform-positive, the system is in compliance with the maximum contaminant level for total coliforms.

2. For a system which collects fewer than 40 samples per month, if no more than one sample collected during a month is total coliform-positive, the system is in compliance with the maximum contaminant level for total coliforms.

(b) Until March 31, 2016, any fecal coliform-positive repeat sample or *E. coli*-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample is a violation of the MCL for total coliforms. For the purposes of the public notification requirements in Rule 62-560.410, F.A.C., this is a violation that poses an acute risk to health. (40 C.F.R. §141.63(b) revised as of July 1, 2014.) This paragraph shall be effective on July 7, 2015.

(c) Until March 31, 2016, a public water system shall determine compliance with the MCL for total coliforms in paragraphs (a) and (b) of this subsection for each month in which it is required to monitor for total coliforms. (40 C.F.R. §141.63(d) revised as of July 1, 2014.) This paragraph shall be effective on July 7, 2015.

(d) Beginning April 1, 2016, a system is in compliance with the MCL for *E. coli* for samples taken under the provisions of 40 C.F.R. Part 141, Subpart Y, which is incorporated by reference in Rule 62.550.830, F.A.C., unless any of the conditions identified in the following subparagraphs 1. through 4. occur. For purposes of the public notification requirements in 40 C.F.R. Part 141, Subpart Q, which is incorporated by reference in Rule 62-560.410, F.A.C., violation of the MCL may pose an acute risk to health. (40 C.F.R. §141.63(c) revised as of July 1, 2014.) This paragraph shall be effective on July 7, 2015.

1. The system has an *E. coli*-positive repeat sample following a total coliform-positive routine sample. (40 C.F.R. §141.63(c)(1) revised as of July 1, 2014.) This subparagraph shall be effective on July 7, 2015.

2. The system has a total coliform-positive repeat sample following an *E. coli*-positive routine sample. (40 C.F.R. §141.63(c)(2) revised as of July 1, 2014.) This subparagraph shall be effective on July 7, 2015.

3. The system fails to take all required repeat samples following an *E. coli*-positive routine sample. (40 C.F.R. §141.63(c)(3) revised as of July 1, 2014.) This subparagraph shall be effective on July 7, 2015.

4. The system fails to test for *E. coli* when any repeat sample tests positive for total coliform. (40 C.F.R. §141.63(c)(4) revised as of July 1, 2014.) This subparagraph shall be effective on July 7, 2015.

(e) Beginning April 1, 2016, a public water system must determine compliance with the MCL for *E. coli* in paragraph 62-550.310(5)(d), F.A.C., for each month in which it is required to monitor for total coliforms. (40 C.F.R. §141.63(d) revised as of July 1, 2014.) This paragraph shall be effective on July 7, 2015.

(6) Radionuclides – This subsection applies to community and nontransient noncommunity water systems. The following are the maximum contaminant levels (MCLs) and regulatory detection limits (RDLs) for radionuclides:

(a) Naturally occurring radionuclides:

MAXIMUM CONTAMINANT LEVELS
FOR RADIONUCLIDES

CONTAMINANT	MAXIMUM CONTAMINANT LEVEL
Combined radium226 and radium228	5 pCi/L
Gross alpha particle activity including radium226 but excluding radon and uranium	15 pCi/L
Uranium	30 ug/L

pCi/L = picoCuries per liter

ug/L = micrograms per liter

(b) Man-made radionuclides:

1. 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 body or any internal organ greater than 4 millirem/year.

2. Except for those radionuclides listed 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 list 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 at

<http://www.flrules.org/Gateway/reference.asp?No=Ref-04137>, which is incorporated herein by reference.

Average Annual Concentration Assumed to Produce
an Exposure of 4 millirem/year:

RADIONUCLIDE	CRITICAL ORGAN	pCi/L
Tritium	total body	20,000
Strontium90	bone marrow	8

pCi/L = picoCuries per liter

3. 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.

(c) For the purposes of monitoring for gross alpha particle activity, radium-226, radium-228, uranium, and beta particle and photon radioactivity in drinking water, the following regulatory detection limits shall be used:

CONTAMINANT	REGULATORY DETECTION LIMIT
Gross alpha particle activity	3 pCi/L
Radium-226	1 pCi/L
Radium-228	1 pCi/L
Uranium	1 ug/L
Tritium	1,000 pCi/L
Strontium-89	10 pCi/L
Strontium-90	2 pCi/L
Iodine-131	1 pCi/L
Cesium-134	10 pCi/L
Gross beta	4 pCi/L
Other radionuclides	1/10 of the applicable limit

pCi/L = picoCuries per liter

ug/L = micrograms per liter

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