

391-3-5-.18 Primary Maximum Contaminant Levels for Drinking Water.

(1) INORGANICS - The maximum contaminant levels (MCLs) for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, mercury, nickel, selenium and thallium of this section apply to community water systems and non-transient, non-community water systems. The MCLs for fluoride in this section apply to community water systems. The MCLs for nitrate, nitrite, and total nitrate-nitrite of this section apply to all (CWS, NTNCWS, TNCWS) public water systems.

(a) The following are the maximum contaminant levels for inorganic chemicals:

CONTAMINANT	MAXIMUM CONTAMINANT LEVEL (MCL) (mg/L)	APPLICABLE SYSTEMS
Antimony	0.006	CWS, NTNCWS
Arsenic ³	0.010	CWS, NTNCWS
Asbestos	7 Million Fibers/ Liter Longer than 10 µm	CWS, NTNCWS
Barium	2	CWS, NTNCWS
Beryllium	0.004	CWS, NTNCWS
Cadmium	0.005	CWS, NTNCWS
Chromium	0.1	CWS, NTNCWS
Cyanide	0.2	CWS, NTNCWS
Fluoride ^{1,2}	4.0	CWS
Lead	see 391-3-5-.25 Treatment Technique	CWS, NTNCWS
Mercury	0.002	CWS, NTNCWS
Nickel	0.1	CWS, NTNCWS
Nitrate	10 (as N)	CWS, NTNCWS, TNCWS
Nitrite	1 (as N)	CWS, NTNCWS, TNCWS
Total Nitrate + Nitrite	10 (as N)	CWS, NTNCWS, TNCWS
Selenium	0.05	CWS, NTNCWS
Thallium	0.002	CWS, NTNCWS

NOTES:

1. Effective date for fluoride was October 2, 1987.
2. Fluoride also has a secondary MCL (Section 391-3-5-.19(2)).
3. The enforcement date for the 0.010mg/l MCL is January 23, 2006.

(b) At the discretion of the Director, nitrate levels not to exceed 20 mg/l may be allowed in a non-community water system if the supplier of water demonstrates to the satisfaction of the Director that:

1. such water will not be available to children under 6 months of age;
2. there will be continuous posting of the fact that nitrate levels exceed 10 mg/l and the potential health effects of exposure;
3. local and State public health authorities will be notified annually of nitrate levels that exceed 10 mg/l;
4. no adverse health effects shall result.

(2) ORGANIC CHEMICALS - The following maximum contaminant levels for organic contaminants apply to community water systems and non-transient, non-community water systems. Compliance with maximum contaminant levels for the following organics is to be calculated pursuant to Section 391-3-5-.22.

(a) Synthetic Organic Chemicals, Pesticides and Polychlorinated biphenyls

CONTAMINANT	MCL(mg/L)
Alachlor	0.002
Aldicarb	Deferred
Aldicarb sulfone	Deferred
Aldicarb sulfoxide	Deferred
Atrazine	0.003
Benzo(a)Pyrene	0.0002
Carbofuran	0.04
Chlordane	0.002
Dalapon	0.2
Di(2-ethylhexyl) adipate	0.4
Di(2-ethylhexyl) phthalate	0.006
Dibromochloropropane (DBCP)	0.0002
Dinoseb	0.007
Diquat	0.02
2,4-D	0.07
Endothall	0.1
Endrin	0.002
Ethylene dibromide (EDB)	0.00005
Glyphosate	0.7
Heptachlor	0.0004
Heptachlor Epoxide	0.0002
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.04
Oxamyl (Vydate)	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated biphenyls (PCBs)	0.0005
Simazine	0.004

Toxaphene	0.003
2,4,5-TP (Silvex)	0.05
2,3,7,8-TCDD (Dioxin)	3×10^{-8}

(b) Volatile Organic Contaminants (VOCs)

CONTAMINANT	MCL(mg/L)
Vinyl chloride	0.002
Benzene	0.005
Carbon tetrachloride	0.005
1,2-Dichloroethane	0.005
Trichloroethylene	0.005
para-Dichlorobenzene	0.075
1,1-Dichloroethylene	0.007
1,1,1-Trichloroethane	0.2
cis-1,2-Dichloroethylene	0.07
1,2-Dichloropropane	0.005
Ethylbenzene	0.7
Monochlorobenzene	0.1
o-Dichlorobenzene	0.6
Styrene	0.1
Tetrachloroethylene	0.005
Toluene	1
trans-1,2-Dichloroethylene	0.1
Xylenes (total)	10
Dichloromethane	0.005
1,2,4-Trichlorobenzene	0.07
1,1,2-Trichloroethane	0.005

(3) TURBIDITY - Treatment Technique Requirements:

(a) The maximum contaminant level for turbidity is determined by a treatment technique requirement as set forth in this Section.

(b) The treatment technique requirement for turbidity is applicable to both community water systems and non-community water systems using surface water sources or ground water sources under the direct influence of surface water in whole or in part. The treatment technique requirement for turbidity in drinking water, measured at a representative point(s) in the filtered water is:

1. Less than or equal to 0.3 turbidity unit in at least 95 percent of the monthly measurements. One turbidity unit is the maximum allowable level and must not be exceeded at any time.
2. Five turbidity units is the maximum allowable level and must not be exceeded at any time.
3. In accordance with 40 CFR § 141.73, the Division may allow higher turbidity levels for slow sand filtration, diatomaceous earth filtration, or other filtration technologies.

4. Beginning January 1, 2002, public water systems that use surface water or ground water under the direct influence of surface water and serve at least 10,000 people must meet the filtration requirements specified in 40 CFR § 141.173 (see Rule 391-3-5-.20(5)).

5. The Enhanced Filtration and Disinfection requirements specified in 40 CFR, Subpart P are applicable to Subpart H systems serving at least 10,000 people (see Rule 391-3-5-.20(8)).

6. Beginning January 14, 2005, public water systems that use surface water or ground water under the direct influence of surface water as a source and serve fewer than 10,000 people must meet the filtration and disinfection requirements in 40 CFR Part 141, Subpart T. This requirement is in addition to complying with requirements in Subpart H of 40 CFR Part 141 [see Rule 391-3-5-.20(8)].

(4) MICROBIOLOGICAL - Maximum contaminant levels (MCLs) for microbiological contaminants.

(a) The MCL is based on the presence or absence of total coliforms in a sample, rather than coliform density.

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 MCL 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 MCL for total coliforms.

(b) 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 constitutes a violation of the MCL for total coliforms. For purposes of the public notification requirements in Section 391-3-5-.32, this is a violation that may pose an acute risk to health.

(c) A public water system must determine compliance with the MCL for total coliforms in paragraphs (a) and (b) of this Section for each month in which it is required to monitor for total coliforms.

(5) RADIOACTIVITY - Maximum contaminant levels for Radium- 226, Radium-228, gross alpha particle radioactivity, beta particle and photon radioactivity from man-made radionuclides in community water systems.

(a) The following are the maximum contaminant levels for Radium- 226, Radium-228, gross alpha radioactivity, and Uranium:

1. combined Radium-226 and Radium-228 — 5 pCi/l.

2. gross alpha particle activity (including Radium-226 but excluding Radon and Uranium) — 15 pCi/l.

3. Uranium – 30 ug/L.

(b) 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 per year.

(c) Except for the radionuclides listed in Table A, 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 Concentrations 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 per year.

TABLE A. — Average annual concentrations assumed for the purpose of this rule to produce a total body or organ dose of 4 millirem per year.

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

(6) TRIHALOMETHANES - Maximum contaminant level for trihalomethanes. (see section (7) below).

(7) Disinfectants and Disinfection Byproducts (D/DBPs). Beginning January 1, 2002, this section shall be applicable as specified below:

(a) The maximum contaminant levels (MCLs) for disinfection byproducts (DBPs) are as specified in section 40 CFR § 141.64 and the maximum residual disinfectant levels (MRDLs) are as specified in section 40 CFR § 141.65.

Disinfection Byproduct	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Halooacetic acids (five) (HAA5)	0.060
Bromate	0.010
Chlorite	1.0
Disinfectant residual	MRDL (mg/L)
Chlorine	4.0 (as Cl ₂)
Chloramines	4.0 (as Cl ₂)
Chlorine dioxide	0.8 (as ClO ₂)

(b) Beginning January 1, 2002, community and nontransient, noncommunity Subpart H water systems which serve a population of 10,000 people or more must comply with this section.

(c) Beginning January 1, 2004, community and nontransient, noncommunity Subpart H water systems serving fewer than 10,000 people and systems using only ground water not under the direct influence of surface water must comply with this section.

(d) A system that is installing granular activated carbon (GAC) or membrane technology to comply with this section may apply to the Division for an extension of up to 24 months past the dates in paragraphs (b) and (c) of this section, but not beyond December 31, 2003.

(e) Transient noncommunity Subpart H water 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.

(f) Transient noncommunity Subpart H water 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.

(8) Maximum Contamination Level Goals (MCLG). The maximum contaminant level goals for organic contaminants, inorganic contaminants, and microbiological contaminants shall be in accordance with 40 CFR Part 141.50, 141.51, 141.53, and 141.54.

(9) The best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant levels for disinfection byproducts identified in Section 391-3-5-.18(7)(a) shall be in accordance with 40 CFR, Part 141.64(c).

Authority O.C.G.A. Sec. 12-5-170 et seq. **History.** Original Rule entitled “Operating Records” adopted. F. Sept. 6, 1973; eff. Sept. 26, 1973. **Repealed:** New Rule entitled “Primary Maximum Contaminant Levels for Drinking Water” adopted. F. July 5, 1977; eff. July 26, 1977, as specified by Rule 391-3-5-.47.

Amended: F. July 15, 1983; eff. Aug. 4, 1983. **Repealed:** New Rule of same title adopted. F. May 12, 1989; eff. June 1, 1989. **Amended:** F. Dec. 4, 1990; eff. Dec. 24, 1990. **Repealed:** New Rule, same title adopted. F. June 25, 1992; eff. July 15, 1992. **Repealed:** New Rule of same title adopted. F. Mar. 10, 1994; eff. Mar. 30, 1994. **Amended:** F. Sept. 26, 1997; eff. Oct. 16, 1997. **Amended:** F. Sept. 29, 2000; eff. Oct. 19, 2000. **Amended:** F. June 8, 2001; eff. June 28, 2001. **Amended:** F. Dec. 10, 2002; eff. Dec. 30, 2002. **Amended:** F. Dec. 21, 2004; eff. Jan. 10, 2005. **Amended:** F. May 27, 2009; eff. June 16, 2009.