

**§ 141.155**

**40 CFR Ch. I (7-1-02 Edition)**

(2) May write its own educational statement, but only in consultation with the Primacy Agency.

(c) A system which detects nitrate at levels above 5 mg/l, but below the MCL:

(1) Must include a short informational statement about the impacts of nitrate on children using language such as: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

(2) May write its own educational statement, but only in consultation with the Primacy Agency.

(d) Systems which detect lead above the action level in more than 5%, and up to and including 10%, of homes sampled:

(1) Must include a short informational statement about the special impact of lead on children using language such as: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

(2) May write its own educational statement, but only in consultation with the Primacy Agency.

(e) Community water systems that detect TTHM above 0.080 mg/l, but below the MCL in §141.12, as an annual average, monitored and calculated under the provisions of §141.30, must include health effects language for TTHMs prescribed by appendix A.

(f) Beginning in the report due by July 1, 2002 and ending January 22, 2006, a community water system that detects arsenic above 0.01 mg/L and up to and including 0.05 mg/L must include the arsenic health effects lan-

guage prescribed by Appendix A to Subpart O.

[63 FR 44526, Aug. 19, 1998, as amended at 63 FR 69475, Dec. 16, 1998; 64 FR 34733, June 29, 1999; 65 FR 26023, May 4, 2000; 66 FR 7064, Jan. 22, 2001]

**§ 141.155 Report delivery and record-keeping.**

(a) Except as provided in paragraph (g) of this section, each community water system must mail or otherwise directly deliver one copy of the report to each customer.

(b) The system must make a good faith effort to reach consumers who do not get water bills, using means recommended by the primacy agency. EPA expects that an adequate good faith effort will be tailored to the consumers who are served by the system but are not bill-paying customers, such as renters or workers. A good faith effort to reach consumers would include a mix of methods appropriate to the particular system such as: Posting the reports on the Internet; mailing to postal patrons in metropolitan areas; advertising the availability of the report in the news media; publication in a local newspaper; posting in public places such as cafeterias or lunch rooms of public buildings; delivery of multiple copies for distribution by single-biller customers such as apartment buildings or large private employers; delivery to community organizations.

(c) No later than the date the system is required to distribute the report to its customers, each community water system must mail a copy of the report to the primacy agency, followed within 3 months by a certification that the report has been distributed to customers, and that the information is correct and consistent with the compliance monitoring data previously submitted to the primacy agency.

(d) No later than the date the system is required to distribute the report to its customers, each community water system must deliver the report to any other agency or clearinghouse identified by the primacy agency.

(e) Each community water system must make its reports available to the public upon request.

(f) Each community water system serving 100,000 or more persons must

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post its current year's report to a publicly-accessible site on the Internet.

(g) The Governor of a State or his designee, or the Tribal Leader where the tribe has met the eligibility requirements contained in §142.72 for the purposes of waiving the mailing requirement, can waive the requirement of paragraph (a) of this section for community water systems serving fewer than 10,000 persons. In consultation with the tribal government, the Regional Administrator may waive the requirement of §141.155(a) in areas in Indian country where no tribe has been deemed eligible.

(1) Such systems must:

(i) Publish the reports in one or more local newspapers serving the area in which the system is located;

(ii) Inform the customers that the reports will not be mailed, either in the

newspapers in which the reports are published or by other means approved by the State; and

(iii) Make the reports available to the public upon request.

(2) Systems serving 500 or fewer persons may forego the requirements of paragraphs (g)(1)(i) and (ii) of this section if they provide notice at least once per year to their customers by mail, door-to-door delivery or by posting in an appropriate location that the report is available upon request.

(h) Any system subject to this subpart must retain copies of its Consumer Confidence Report for no less than 3 years.

[63 FR 44526, Aug. 19, 1998, as amended at 65 FR 26023, May 4, 2000]

APPENDIX A TO SUBPART O OF PART  
141—REGULATED CONTAMINANTS

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Microbiological contaminants: Total Coliform Bacteria ...	MCL: (systems that collect ≥40 samples/month) 5% of monthly samples are positive; (systems that collect <40 samples/month) 1 positive monthly sample.	.....	MCL: (systems that collect ≥40 samples/month) 5% of monthly samples are positive; (systems that collect <40 samples/month) 1 positive monthly sample.	0 .....	Naturally present in the environment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform and E. coli	0 .....	.....	0 .....	0 .....	Human and animal fecal waste ....	Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely-compromised immune systems.
Total organic carbon (ppm).	TT .....	.....	TT .....	N/A .....	Naturally present in the environment.	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These by-products include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Turbidity (NTU) .....	TT .....	.....	TT .....	N/A .....	Soil runoff .....	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
Radioactive contaminants: Beta/photon emitters (mrem/yr).	4 mrem/yr .....	.....	4 .....	N/A .....	Decay of natural and man-made deposits.	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters (pCi/l) .....	15 pCi/l .....	.....	15 .....	N/A .....	Erosion of natural deposits .....	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/l)	5 pCi/l .....	— .....	5 .....	N/A .....	Erosion of natural deposits .....	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Inorganic contaminants: Antimony (ppb) .....	.006 .....	1000 .....	6 .....	6 .....	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb) .....	10.01 .....	1000 .....	110 .....	10 .....	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Asbestos (MFL) .....	7 MFL .....	.....	7 .....	7 .....	Decay of asbestos cement water mains; Erosion of natural deposits.	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium (ppm) .....	2 .....	.....	2 .....	2 .....	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Beryllium (ppb) .....	.004 .....	1000 .....	4 .....	4 .....	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries.	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions
Cadmium (ppb) .....	.005 .....	1000 .....	5 .....	5 .....	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints.	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Chromium (ppb) .....	.1 .....	1000 .....	100 .....	100 .....	Discharge from steel and pulp mills; Erosion of natural deposits.	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Copper (ppm) .....	AL=1.3 .....	.....	AL=1.3 .....	1.3 .....	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Cyanide (ppb) .....	.2 .....	1000 .....	200 .....	200 .....	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.

Fluoride (ppm) .....	4 .....	.....	4 .....	4 .....	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Lead (ppb) .....	AL=.015 .....	1000 .....	AL=15 .....	0 .....	Corrosion of household plumbing systems; Erosion of natural deposits.	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Mercury [inorganic] (ppb)	.002 .....	1000 .....	2 .....	2 .....	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
Nitrate (ppm) .....	10 .....	.....	10 .....	10 .....	Runoff from fertilizer use; Leaching from septic tanks, sew age; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Nitrite (ppm) .....	1 .....	.....	1 .....	1 .....	Runoff from fertilizer use; Leaching from septic tanks, sew age; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Selenium (ppb) .....	.05 .....	1000 .....	50 .....	50 .....	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Thallium (ppb) .....	.002 .....	1000 .....	2 .....	0.5 .....	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
Synthetic organic contaminants including pesticides and herbicides:						
2,4-D (ppb) .....	.07 .....	1000 .....	70 .....	70 .....	Runoff from herbicide used on row crops.	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
2,4,5-TP [Silvex](ppb) .....	.05 .....	1000 .....	50 .....	50 .....	Residue of banned herbicide .....	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
Acrylamide .....	TT .....	.....	TT .....	0 .....	Added to water during sewage/wastewater treatment.	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.
Alachlor (ppb) .....	.002 .....	1000 .....	2 .....	0 .....	Runoff from herbicide used on row crops.	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.

Atrazine (ppb) .....	.003 .....	1000 .....	3 .....	3 .....	Runoff from herbicide used on row crops.	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Benzo(a)pyrene [PAH] (nanograms/l).	.0002 .....	1,000,000 .....	200 .....	0 .....	Leaching from linings of water storage tanks and distribution lines.	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb) .....	.04 .....	1000 .....	40 .....	40 .....	Leaching of soil fumigant used on rice and alfalfa.	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
Chlordane (ppb) .....	.002 .....	1000 .....	2 .....	0 .....	Residue of banned termiticide .....	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
Dalapon (ppb) .....	.2 .....	1000 .....	200 .....	200 .....	Runoff from herbicide used on rights of way.	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
Di(2-ethylhexyl) adipate (ppb).	.4 .....	1000 .....	400 .....	400 .....	Discharge from chemical factories	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.
Di(2-ethylhexyl) phthalate (ppb).	.006 .....	1000 .....	6 .....	0 .....	Discharge from rubber and chemical factories.	Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.



Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Dibromochloropropane (ppt).	.002	1,000,000	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive problems and may have an increased risk of getting cancer.
Dinoseb (ppb)	.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables.	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
Diquat (ppb)	.02	1000	20	20	Runoff from herbicide use	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
Dioxin [2,3,7,8-TCDD] (ppq).	.00000003	1,000,000,000	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories.	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Endothall (ppb)	.1	1000	100	100	Runoff from herbicide use	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
Endrin (ppb)	.002	1000	2	2	Residue of banned insecticide	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
Epichlorohydrin	TT		TT	0	Discharge from industrial chemical factories; An impurity of some water treatment chemicals.	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide (ppt)	.00005	1,000,000	50	0	Discharge from petroleum refineries.	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.

Glyphosate (ppb) .....	.7 .....	1000 .....	700 .....	700 .....	Runoff from herbicide use .....	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
Heptachlor (ppt) .....	.0004 .....	1,000,000 .....	400 .....	0 .....	Residue of banned pesticide .....	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt) .....	.0002 .....	1,000,000 .....	200 .....	0 .....	Breakdown of heptachlor .....	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene (ppb) .....	.001 .....	1000 .....	1 .....	0 .....	Discharge from metal refineries and agricultural chemical factories.	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
Hexachlorocyclopentadiene (ppb) .....	.05 .....	1000 .....	50 .....	50 .....	Discharge from chemical factories	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.
Lindane (ppt) .....	.0002 .....	1,000,000 .....	200 .....	200 .....	Runoff/leaching from insecticide used on cattle, lumber, gardens.	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
Methoxychlor (ppb) .....	.04 .....	1000 .....	40 .....	40 .....	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
Oxamyl [Vydate] (ppb) .....	.2 .....	1000 .....	200 .....	200 .....	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
PCBs [Polychlorinated biphenyls] (ppt).	.0005 .....	1,000,000 .....	500 .....	0 .....	Runoff from landfills; Discharge of waste chemicals.	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol (ppb)	.001 .....	1000 .....	1 .....	0 .....	Discharge from wood preserving factories.	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
Picloram (ppb) .....	.5 .....	1000 .....	500 .....	500 .....	Herbicide runoff .....	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
Simazine (ppb) .....	.004 .....	1000 .....	4 .....	4 .....	Herbicide runoff .....	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
Toxaphene (ppb) .....	.003 .....	1000 .....	3 .....	0 .....	Runoff/leaching from insecticide used on cotton and cattle.	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
Volatile organic contaminants: Benzene (ppb) .....	.005 .....	1000 .....	5 .....	0 .....	Discharge from factories; Leaching from gas storage tanks and landfills.	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.

Bromate (ppb) .....	.010 .....	1000 .....	10 .....	0 .....	By-product of drinking water chlorination.	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Carbon tetrachloride (ppb).	.005 .....	1000 .....	5 .....	0 .....	Discharge from chemical plants and other industrial activities.	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
Chloramines (ppm) .....	MRDL = 4 .....	.....	MRDL = 4 .....	MRDLG = 4 .....	Water additive used to control microbes.	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine (ppm) .....	MRDL = 4 .....	.....	MRDL = 4 .....	MRDLG = 4 .....	Water additive used to control microbes.	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorite (ppm) .....	1 .....	.....	1 .....	0.8 .....	By-product of drinking water chlorination.	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Chloride dioxide (ppb) .....	MRDL = .8 .....	1000 .....	MRDL = 800 .....	MRDLG = 800 .....	Water additive used to control microbes.	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Chlorobenzene (ppb) .....	.1 .....	1000 .....	100 .....	100 .....	Discharge from chemical and agricultural chemical factories.	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
o-Dichlorobenzene (ppb) .....	.6 .....	1000 .....	600 .....	600 .....	Discharge from industrial chemical factories.	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
p-Dichlorobenzene (ppb) .....	.075 .....	1000 .....	75 .....	75 .....	Discharge from industrial chemical factories.	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
1,2-Dichloroethane (ppb) .....	.005 .....	1000 .....	5 .....	0 .....	Discharge from industrial chemical factories.	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene (ppb) .....	.007 .....	1000 .....	7 .....	7 .....	Discharge from industrial chemical factories.	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
cis-1,2-Dichloroethylene (ppb) .....	.07 .....	1000 .....	70 .....	70 .....	Discharge from industrial chemical factories.	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

trans-1,2-Dichloroethylene (ppb)	.1	1000	100	100	Discharge from industrial chemical factories.	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
Dichloromethane (ppb)	.005	1000	5	0	Discharge from pharmaceutical and chemical factories.	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane (ppb)	.005	1000	5	0	Discharge from industrial chemical factories.	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	.7	1000	700	700	Discharge from petroleum refineries.	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
Haloacetic Acids (HAA) (ppb)	.060	1000	60	N/A	By-product of drinking water disinfection.	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Styrene (ppb)	.1	1000	100	100	Discharge from rubber and plastic factories; Leaching from landfills.	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
Tetrachloroethylene (ppb)	.005	1000	5	0	Discharge from factories and dry cleaners.	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene (ppb)	.07	1000	70	70	Discharge from textile-finishing factories.	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
1,1,1-Trichloroethane (ppb).	.2 .....	1000 .....	200 .....	200 .....	Discharge from metal degreasing sites and other factories.	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-Trichloroethane (ppb).	.005 .....	1000 .....	5 .....	3 .....	Discharge from industrial chemical factories.	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
Trichloroethylene (ppb) ...	.005 .....	1000 .....	5 .....	0 .....	Discharge from metal degreasing sites and other factories.	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
TTHMs [Total trihalomethanes] (ppb).	0.10/.080 .....	1000 .....	100/80 .....	N/A .....	By-product of drinking water chlorination.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Toluene (ppm) .....	1 .....	.....	1 .....	1 .....	Discharge from petroleum factories.	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
Vinyl Chloride (ppb) .....	.002 .....	1000 .....	2 .....	0 .....	Leaching from PVC piping; Discharge from plastics factories.	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes (ppm) .....	10 .....	.....	10 .....	10 .....	Discharge from petroleum factories; Discharge from chemical factories.	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

<sup>1</sup>These arsenic values are effective January 23, 2006. Until then, the MCL is 0.05 mg/L and there is no MCLG.  
Key:

AL=Action Level  
MCL=Maximum Contaminant Level  
MCLG=Maximum Contaminant Level Goal  
MFL=million fibers per liter  
MRDL=Maximum Residual Disinfectant Level  
MRDLG=Maximum Residual Disinfectant Level Goal  
mrem/year=millirems per year (a measure of radiation absorbed by the body)  
N/A=Not Applicable  
NTU=Nephelometric Turbidity Units (a measure of water clarity)  
pCi/l=picocuries per liter (a measure of radioactivity)  
ppm=parts per million, or milligrams per liter (mg/l)  
ppb=parts per billion, or micrograms per liter (µg/l)  
ppt=parts per trillion, or nanograms per liter  
ppq=parts per quadrillion, or picograms per liter  
TT=Treatment Technique

[65 FR 26024, May 4, 2000, as amended at 66 FR 7064, Jan. 22, 2001]



**Pt. 141, Subpt. O, App. A**

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EFFECTIVE DATE NOTE: At 65 FR 76749, Dec. 7, 2000, the table in appendix A to subpart O was amended under the heading "Radioactive contaminants" by revising the entries for "Beta/photon emitters (mrem/yr)", "Alpha emitters (pCi/l)", and "Combined radium (pCi/l)" and adding a new entry for

"Uranium (pCi/L)", effective Dec. 8, 2003. For the convenience of the user, the revised and added entries are set forth as follows:

APPENDIX A TO SUBPART O OF PART  
141—REGULATED CONTAMINANTS

Contaminant units	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Radioactive contaminants: Beta/photon emitters (mrem/yr).	4 mrem/yr .....	- .....	4 .....	0 .....	Decay of natural and man-made deposits.	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters (pCi/L) .....	15 pCi/L .....	- .....	15 .....	0 .....	Erosion of natural deposits .....	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/L)	5 pCi/L .....	- .....	5 .....	0 .....	Erosion of natural deposits .....	Some people who drink water containing radium-226 or -228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (pCi/L) .....	30 µg/L .....	- .....	30 .....	0 .....	Erosion of natural deposits .....	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.